Wollongong Private Hospital SSDA Proposals

Economic Impact Assessment

Prepared for **360 Property Agency Pty Ltd**

On behalf of **AA Crown Holdings Pty Ltd**

10 March 2026

FINAL

macroplan

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Macroplan staff responsible for this report:

Nigel Stapledon, Chief Adviser

Estella Zhang, Manager Economics & Property Research

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Contact

Level 12
360 Elizabeth Street
Melbourne VIC 3000
(03) 9600 0500
info@macroplan.com.au

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Table of Contents

Table of Contents **3**

Executive Summary **4**

1 Introduction **9**

1.1 Regional and Locational Context 9

1.2 Wollongong Private Hospital 12

1.3 Planning Context 15

1.4 Data and Information Sources 17

1.5 Limitations 18

2 Study Area Delineation **19**

3 Health Care Trends Overview **21**

3.1 Overview of the Health Care Sector 21

3.2 Overview of Hospitals in Australia 21

3.3 Australia's Long Term National Health Plan 24

3.4 ISLHD Historical Population Trends 25

3.5 ISLHD Population Projections 25

3.6 ISLHD Socio-demographic Assessment 29

4 Gap Assessment **31**

4.1 Methodology 31

4.2 Population Projections by Age 31

4.3 Separations & Bed Requirement 32

4.4 Gap Assessment 34

4.5 Summary of Findings 35

5 Employment Generation **36**

5.1 Development Phase 36

5.2 Post-development 37

5.3 Wider Community Benefits 38

6 Other Considerations **39**

6.1 Contribution to the Health Care System and Supporting Australia's Ageing Demographic 39

6.2 Providing Educational and Vocational Training Platforms for Prospective Medical Practitioners 43

6.3 Private Health Insurance Trends 44

6.4 Employment Containment 45

6.5 Industry Value Added (IVA) 45

7 Conclusion **47**

Appendices **48**

Appendix 1 Private Hospital Supply 48

Appendix 2 Economic Impact Assessment Methodology 49

Executive Summary

Study Context

Macroplan have been engaged by 360 Property Agency Pty Ltd (client representative) on behalf of AA Crown Holdings Pty Ltd (the client) to undertake an update of an economic impact assessment (EIA) supporting the resubmission of the State Significant Development Application (SSDA) for the proposed Wollongong Private Hospital (the hospital) expansion project (the project) located at 15, 17, 19, 21, and 23 Urunga Parade & 360-364, 366 and 368 Crown Street, Wollongong (the subject site), within the municipality of Wollongong.

Macroplan prepared an EIA report supporting the SSDA for the project in 2022 (the 2022 report), which involved an assessment on the economic implications of the SSDA including additional jobs generated, industry value-add and catalyst project for the region. The 2022 application did not proceed and the current SSDA presents a revised scheme. This EIA reflects the current SSDA.

Wollongong Private Hospital is a healthcare facility operated by Ramsay Health Care, one of Australia's leading private hospital operators. The hospital has set a new benchmark in private hospital facilities for the Illawarra and South Coast. Offering a full range of medical, surgical, and maternity services, the 171-bed hospital boasts state-of-the-art facilities, including an intensive care unit, ten operating theatres, cardiac and vascular laboratories and an endoscopy suite.

This application seeks consent for lot consolidation, demolition of five dwellings, excavation, construction of a new twelve (12) storey western wing to the existing hospital, extension of the existing basement levels and an additional three (3) basement levels for parking and a new radiation oncology, and retention of two existing buildings, including the existing heritage item on the site, to be leased to the Illawarra Aboriginal Medical Service (IAMS) for medical use.

The extension will consist of a new emergency department, satellite imaging, radiation oncology, additional patient units, expanded intensive care unit, operating theatres, recovery and central sterile supply department, meeting-conference spaces, tenancies with waiting rooms and amenities, offices and administration areas, plant and servicing areas. Furthermore, the proposal will provide medical accommodation at the upper levels of the expansion.

The proposal will largely retain the form and internal layout of the existing hospital building including an existing radiology, pharmacy, café, kitchen and store, day surgery, oncology, in-patient units, Cath lab, tenancy's, administration and plant room.

The proposal will also provide new vehicular access from Urunga Parade with one entry lane and two exit lanes off each street. Existing access from Crown Street will be maintained and lead to the ground level consisting of an ambulance bay, doctors parking and a public emergency drop off area exclusively for the Emergency Department only near the main entry lobby, which is to be retained as existing. The access from Urunga Parade will lead to the basement parking levels with drop off area for hospital patients and visitors and doctors parking and loading dock with turntable.

The proposal will also provide considerable landscaping cross the site and provide opportunities for public artwork.

Notably, the heritage building at No. 366 Crown Street and the existing building at No. 368 Crown Street will both be retained and existing uses as medical tenancy's maintained and leased to IAMS. Specifically, it is understood that the tenancy at No. 366 will be utilised as a birthing centre for expecting mothers of the Indigenous community whilst the tenancy at No. 368 will be utilised as a general medical centre for the Indigenous community, whereby both tenancy's will refer patients to the hospital where necessary. No changes are proposed to the existing buildings, however, landscaping and parking design will be enhanced which will improve upon the existing arrangements and ensure the sites are well-integrated with the hospital development.

As demand for health care services continues to expand in the local and wider community, the proposed expansion will provide a brand-new emergency department and additional operating capacity with various function areas and commercial tenancies for the hospital to provide general and specialised services.

Macroplan have utilised the Illawarra Shoalhaven Local Health District (ISLHD) as the study area for this assessment. The ISLHD is comprised of the following Local Government Areas (LGAs):

- Wollongong LGA,
- Shellharbour LGA,
- Kiama LGA, and
- Shoalhaven LGA.

The key take-outs of the assessment are summarised below.

Employment Generation

Item 2 of the Secretary's Environmental Assessment Requirements (SEARs) relates to 'Employment' and states: "Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including details of the methodology to determine the figures provided."

The proposed expansion can support the local economy and improve the overall health care provision within the local and wider area by providing more employment floorspace and promoting industry diversification. It will generate more employment during the planning, construction, operational and maintenance stages.

During the assumed 2 years of the construction phase, the estimated capital investment of approximately $128.0 million[1] (excluding GST) is likely to generate approximately 149 full time equivalent (FTE) jobs per annum directly in the construction industry, plus another 187 production-induced indirect FTE jobs and 208 consumption-induced FTE jobs elsewhere in the economy.

When fully operational, the proposed expansion is expected to deliver a total of approximately 275-320 direct FTE jobs including 70-90 hospital jobs[2], 180-205 jobs supported by the commercial space and 22 jobs supported by the medi-hotel. Further to this, the direct employment will have flow-on impacts and create another 50-58 production-induced indirect FTE jobs and 220-260 consumption-induced FTE jobs elsewhere in the economy.

Detailed assessment on the estimated employment generated is contained in Section 5 of this report and relevant methodology is outlined in Appendix 2.

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[1] The capital investment is based on the estimated development cost prepared by Genus Advisory dated 4 December 2025.
[2] At the time of preparation of the 2022 report, the Wollongong Private Hospital operator Ramsay Health Care indicated an estimate of 160 full-time employees and 40 part-time employees (i.e. contractors) at an ongoing basis onsite, or 180 FTE jobs. Given Ramsay has since reduced their requirement from 172 beds to 70-90 beds, the estimated employment has been scaled down.

Gap Assessment

For the gap assessment, Macroplan have utilised the ISLHD as the study area which represents the area where we expect the largest source of demand for health care services (e.g., hospital beds, doctors & specialist) will stem from.

Looking at the historical population, the ISLHD has been on an upward trajectory with growth seen in all four LGAs examined. Between 2010 and 2023, the ISLHD has grown by approximately 50,000 residents, equating to a compound annual growth rate (CAGR) of 1.0% per annum.

In terms of projected population growth, the ISLHD is expected to experience steady growth largely in line with recent population rebound following the recovery from COVID-19. According to the NSW Government Department of Planning, Housing and Infrastructure (DPHI)'s 2024 Population Projections, the region is expected to grow by 152,750 residents from 2021 to 2041 at a CAGR of 1.6% (equivalent to 36.1% growth over the 20 years). Looking at the near term (2021 to 2026), the largest growth is expected from residents aged 65+ (+12,480 residents) followed by those aged 35-44 (+7,320 residents).

The Wollongong LGA is expected to grow by 73,970 residents from 2021 to 2041 at a CAGR of 1.5% (equivalent to 34.5% growth over the 20 years). This is followed by the Shoalhaven LGA which is expected to grow by 43,620 residents from 2021 to 2041 at a CAGR of 1.7% (equivalent to 40.2% growth over the 20 years).

Research undertaken by Macroplan indicates that there is currently a provision of 485 private hospital beds within the study area, including 171 beds located within the Wollongong Private Hospital. Another 10 overnight beds within the proposed Specialist and Surgical Centre of the stage 1 development of the Illawarra International Health Precinct have been approved, and there will also be some additional beds at the approved planned expansion to the Nowra Private Hospital.

Considering the existing and approved supply, Macroplan's gap analysis indicates that there is estimated a shortage of over 110 private hospital beds as of 2021. Moving forward, as the study area's resident population continues to grow steadily, it is estimated that the shortage of private hospital beds within the study area will increase to 165 beds by 2026, then further to 227 by 2031, 285 by 2036 and 344 by 2041.

It is noted that the gap analysis considered the approved future supply only, which excludes the future stages of the Illawarra International Health Precinct and the mooted Wollongong Life City Holistic Health Centre, both of which are currently still at an early concept planning phase. Both projects are planned to be comprehensive health precinct developments involving large-scale hospitals of over 300 beds each. Should both projects be approved and developed during the forecast period, a significant number of extra private hospital beds of over 600 would be added within the study area. Whilst this might lead to a theoretical oversupply of private hospital beds, given their uncertain status, the likelihood of this happening is low. Moreover, with continuing population ageing and rising awareness of health and wellbeing, driving the demand for health facilities well ahead of population growth, there is upside to demand.

Macroplan understand that the Wollongong Private Hospital expansion will create capacity to deliver an addition of 90-100 hospital beds on site upon completion. This is anticipated to make a significant contribution to addressing the current and future private hospital bed undersupply within the ISLHD in the foreseeable future.

Other Considerations

Macroplan also considered other economic impacts and implications as a result of the proposed expansion of the subject hospital.

- Australia's population is ageing and since 2011 there has been a notable increase in both the number and the proportion of the total population aged 65 or older. The percentage of Australians aged 65+ has increased from 8% in 1970 to 17% in 2024 and will increase to 25% by 2071. This trend can also be seen in the ISLHD) which is expected to have its residents aged 55 and older grow by 48,600 (average annual growth of 1.5%) between 2021 and 2041. Elderly people generally require greater use of health services compared to younger people, and as such, demand is expected to increase with the ageing population.

- The 2022 *National Health Survey* shows that the proportion of Australians living with chronic illness is heavily skewed to the older age cohorts, with common conditions including arthritis, hypertension, deafness, back problems, high cholesterol, heart stroke and vascular disease, and diabetes. 'Falls' are also major contributors to hospitalisations and deaths for the 65+ age cohorts and have been on an upward curve over the observed time period.

- Demand for health services is affected by many factors, but elderly people are generally greater users of health services than younger people, and so demand is expected to increase with the ageing population. This means that the mix and quantum of services required by the community, and the ways in which they are funded and delivered, will need to change as the population ages. The most fundamental and basic approach in which the health care sector can adapt and respond to Australia's ageing population is through the appropriate and time-sensitive planning and delivery of modern infrastructure that can support the day-to-day operating of future medical services (i.e., employment floorspace, hospital beds, medical equipment) which are required to support the growing proportion of the elderly demographic.

- Expanding the existing Wollongong hospital will also generate additional spatial capacity to provide vocational training and educational platforms for prospective medical and nursing graduates. As the residential population continues to grow and age, there is a greater need to cater to this growth through provision of greater services made possible through a corresponding increase in medical/health professionals. An increase in quality clinical placements is required to ensure that more professionals can perform their clinical roles when they graduate.

- In line with recent trends, the number of people with private health insurance coverage is expected to increase for the foreseeable future, which will require a corresponding increase in services available to cater to this market segment. The ageing population (which is increasing in the study area) has partially driven growth in private health insurance coverage. As of September 2024, 12.3 million people in Australia have Total Hospital Treatment Coverage, of which the 65+ age cohorts account for 20%.

- A high self-containment implies there are many jobs in an area which employ local people – evidence of a strong regional employment base. Through retention of spending and expenditure, local job creation can generate higher economic multipliers. The Wollongong – West SA2, where the subject hospital is located, currently achieves a self-containment level of 16.2%. If the proposed expansion is not allowed, there will be no job creation arising from the proposed expansion and its operation resulting in foregone employment growth and a reduced self-containment rate for the area.

- When fully operational, the proposed hospital extension will employ approximately 416 direct FTE workers including both hospital workers and commercial tenants. This could generate a direct Industry Value Added (IVA) of $26.6-$31.2 million per annum.

1 Introduction

Macroplan have been engaged by 360 Property Agency Pty Ltd (client representative) on behalf of AA Crown Holdings Pty Ltd (the client) to undertake an update of an economic impact assessment (EIA) supporting the resubmission of the State Significant Development Application (SSDA) for the proposed Wollongong Private Hospital (the hospital) expansion project (the project) located at 15, 17, 19, 21, and 23 Urunga Parade & 360-364, 366 and 368 Crown Street, Wollongong (the subject site), within the municipality of Wollongong.

Macroplan prepared an EIA report supporting the SSDA for the project in 2022 (the 2022 report), which involved an assessment on the economic implications of the SSDA including additional jobs generated, industry value-add and catalyst project for the region. The 2022 application did not proceed and the current SSDA presents a revised scheme. This EIA reflects the current SSDA.

Given various factors considered during the application process, the masterplan has been revised. This leads to a requirement to update relevant supporting documents including the EIA. This report presents an updated EIA reflecting the updated masterplan and the latest datasets released since the preparation of the 2022 report.

The report is structured as follows:

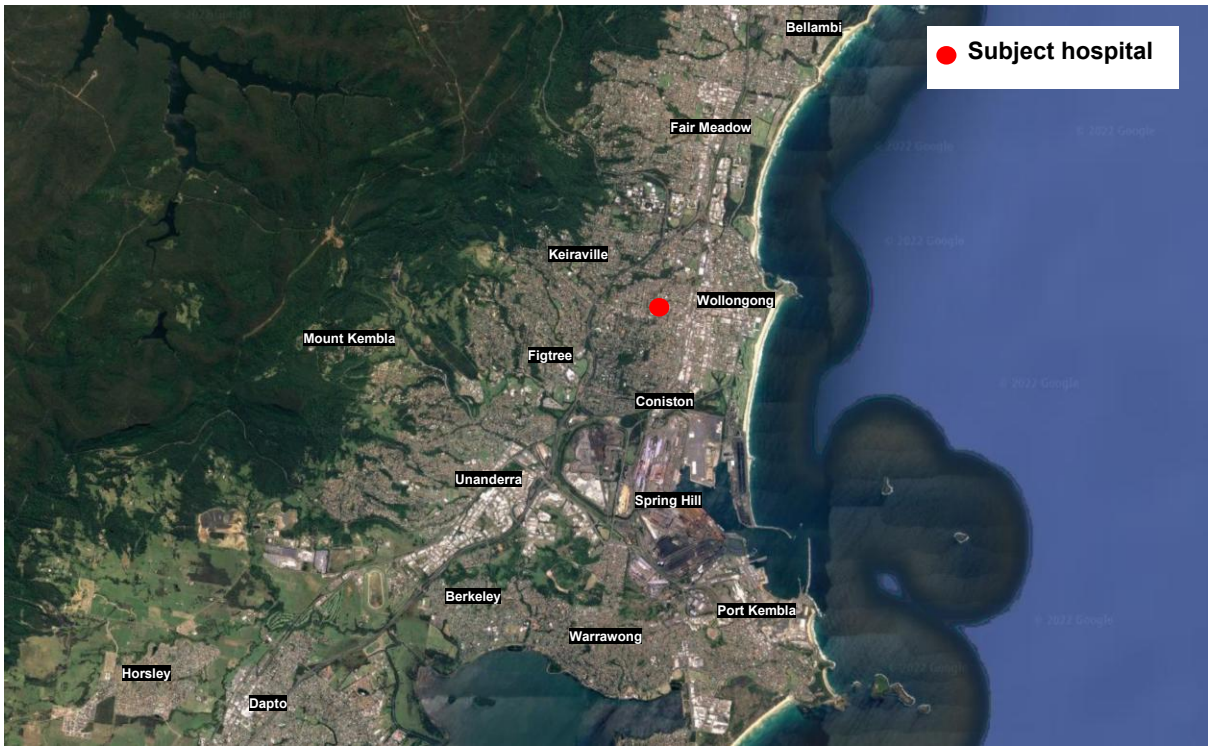
- **Section 2** identifies and describes the study area used for the private hospital bed assessment.
- **Section 3** identifies key health care industry trends and key demographic information in the identified study area.
- **Section 4** assesses the likely demand and potential market gap in the area in the subject locality.
- **Section 5** examines the benefits of expanding the private hospital on the subject hospital including direct and indirect jobs created. This section addresses the requirement outlined in Item 2 of the SEARs regarding employment generation.
- **Section 6** considers any other economic and community impacts that are achievable as a result of development.
- **Section 7** concludes the assessment. And
- Appendices.

1.1 Regional and Locational Context

Figures 1 illustrates the subject hospital's location.

Wollongong is strategically located with access to the Australia Highway 1 road network via the M1/A1 (i.e., Princes Highway) which provides regional connectivity across the Illawarra-Shoalhaven Region and Greater Sydney Metropolitan, and national connectivity across the country. A number of other key arterial roads provide access to and from Wollongong including the B88 and B69 (providing connectivity to South West Sydney & Greater Sydney), and the A48 (providing connectivity to the urban centres of Goulbourn and Canberra via the M31 and M23). Wollongong is also serviced by the Intercity Trains network (via the South Coast Line) and by bus services.

Figure 1 Locality



Source: MetroMaps, Macroplan

The subject hospital (see Figure 2 below) is 0.49 hectares in area and is positioned on Crown Street – directly between Urunga Parade and New Dapto Road, and adjacent to the Wollongong Public Hospital, within the heart of the Wollongong Health Precinct. It is directly encompassed by low density residential to the north, south and west, which also consist of a number of local parks and schools. The subject hospital's eastern boundary is largely comprised of the Wollongong commercial core, which caters to the bulk of the city's employment, retail and commercial services, in addition to a number of recreational uses, natural amenities and beaches along the eastern coastline.

The locality of the subject hospital boasts a range of positive locational attributes including a number of supporting medical uses, good provision of retail amenity, ample public and on-street parking, access to large residential and worker populations, sufficient transport links including bus and train services (Wollongong Station is located 1.1 km from the subject hospital), and proximity to large-scale educational institutions such as Wollongong University and the Wollongong West TAFE campus.

Figure 2 Subject Hospital & Expansion Site

Source: MetroMaps, Macroplan

1.2 Wollongong Private Hospital

Wollongong Private Hospital is a healthcare facility operated by Ramsay Health Care, Australia's leading private hospital operator. The Hospital has set a new benchmark in private hospital facilities for the Illawarra and South Coast.

Offering a full range of medical, surgical and maternity services, the 171-bed hospital boasts state-of-the-art facilities, including an intensive care unit, ten operating theatres, cardiac and vascular laboratories and an endoscopy suite. Wollongong Private Hospital specialises in cardiology, orthopaedics, obstetrics, urology, neurosurgery, day surgery, oncology and general surgery. Comprehensive diagnostic facilities and medical consulting suites are also located on site.

As demand for health care services continues to expand in the local and wider community, the proposed expansion will provide a brand new emergency department and additional operational capacity with various function areas and commercial tenancies for the hospital to provide general and specialised services.

The proposed development includes the development of 12 storeys above ground and four levels of basement attached to the existing hospital, totalling 39,059 sqm GFA. The current masterplan prepared by Health Projects International dated 5 September 2025 indicates that the extension will comprise the following key features:

- New lobby and various support and amenities on lower ground;
- New emergency department (ED) with new drop-off point, entry, ambulance bay, satellite imaging and a café on ground level;
- Expanded operating theatre with a new reception, additional recovery ward and ICU support on L1;
- Expanded CSSD and hospital support on L2;
- A total of 7,160 sqm of commercial tenancy space across L3-L8;
- A new sky garden on L7;
- A 3-level Medi Hotel on L9-L11, totalling 72 keys;
- Radiation oncology on B6; and
- Additional 283 basement carparking spaces on ground floor to B5.

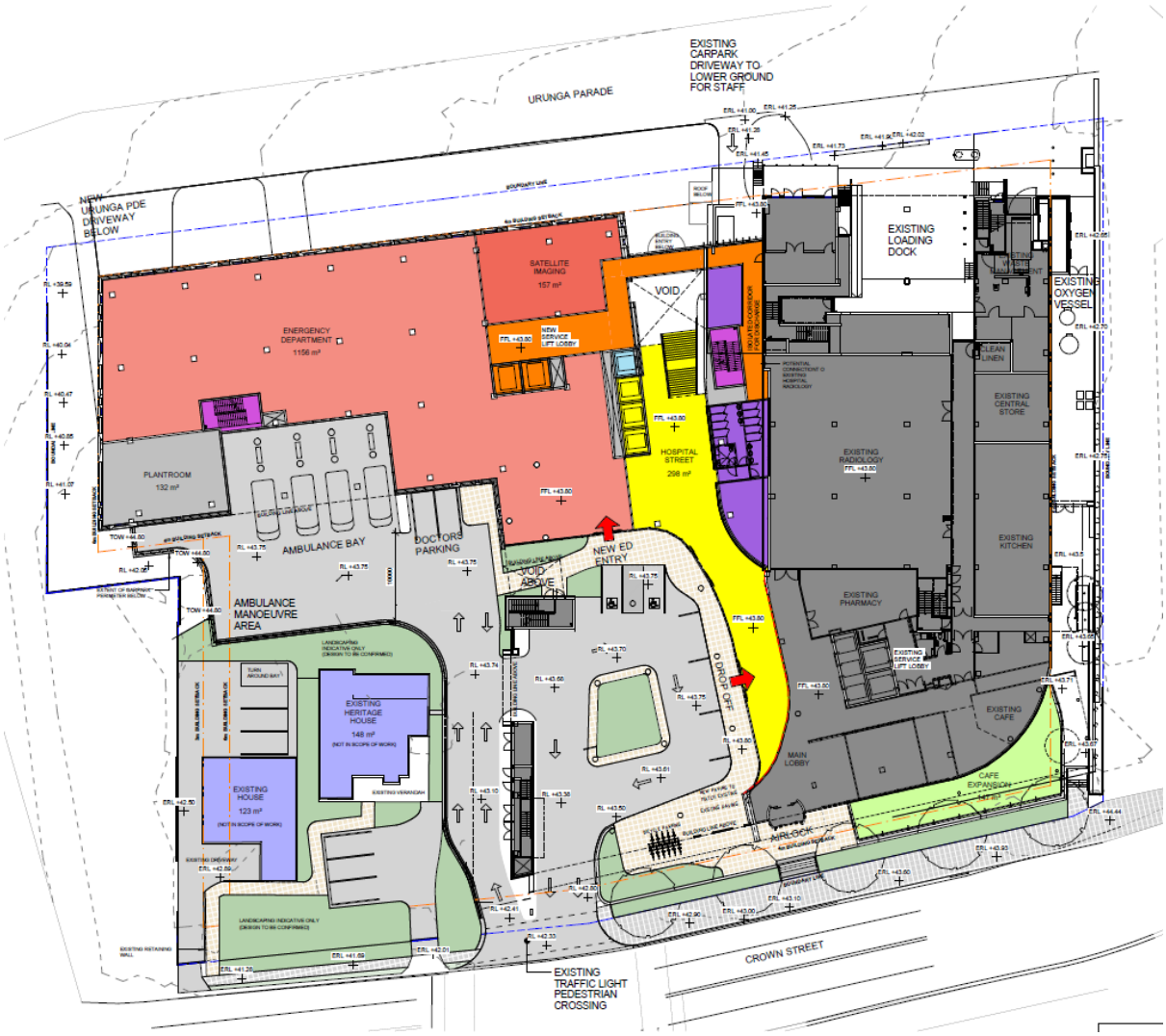
The capital investment of the potential development is estimated at $128.0 million (excluding GST), based on the estimated development cost prepared by Genus Advisory dated 4 December 2025, during an estimated 2-year construction timeframe.

The proposal expansion is also anticipated to free up spaces to accommodate an addition of 70-90 overnight beds as per required by the hospital, either in the new expanded space or in the freed-up space of the existing hospital.

There is also the Illawarra Aboriginal Medical Services (IAMS) proposed to be located in the existing heritage building at 366 & 368 Crown Street adjacent to the hospital for medical use in later stages.

Macroplan envisage that the proposed expansion will complement the need of the growing and ageing residential population by increasing the operational capacity of the existing Wollongong Private Hospital. Further to this, the expansion will also support the viability of the Wollongong Health Precinct by providing health care infrastructure and facilities in the locality and providing local employment opportunities.

Figure 3 Floor Plan – Ground Level



Source: Health Projects International

Figure 4 Aerial View

Source: Health Projects International

1.3 Planning Context

Illawarra Shoalhaven Regional Plan 2041

The *Illawarra Shoalhaven Regional Plan* (released in May 2021) is a 20-year plan that sets out the strategic framework for the region, aiming to protect and enhance the region's assets and plan for a sustainable future.

The vision for the Illawarra Shoalhaven region is "*a reputation for innovation, sustainability and resilience, in 2041 the Illawarra Shoalhaven is a diverse, creative and globally connected region*". The Plan has outlined four key themes:

- A productive and innovative region;
- A sustainable and resilient region;
- A region that values its people and places; and
- A smart and connected region.

The region is expected to need at least an additional 58,000 homes by 2041. The Plan encourages a diverse and affordable range of housing from apartments in Metro Wollongong, Shellharbour City Centre and Nowra Centre, to villas and townhouses in strategic centres.

The Plan indicates the population within the Illawarra Shoalhaven region is expected to increase by 100,000 residents with most of the growth in Wollongong (55,375 residents), followed by Shellharbour (23,571 residents), Shoalhaven (17,130 residents) and Kiama (3,997 residents).

The health and medical services accounts for 17% of employment in the Illawarra Shoalhaven region, with the health and medical facilities in Metro Wollongong playing a strong role. The Health Precinct is anchored by Wollongong Public Hospital which is the region's major tertiary referral and teaching hospital. The health precinct is also supported by Wollongong Private Hospital, along with other medical suites, laboratories, training and rehabilitation centres. Transforming the Health Precinct from a collection of health and medical related uses into a nationally significant health precinct will support prosperity and attract private sector investment and business.

As part of the Plan, the *Shaping the Wollongong Health Precinct Strategy* has been released in December 2023, developed by the Department of Planning, Housing and Infrastructure in collaboration with NSW Health, Transport for NSW, and Wollongong City Council. The Wollongong Health Precinct is centred around the Wollongong Public Hospital, incorporating the Wollongong Private Hospital and surrounding health related uses. Some early directions have been developed in the Strategy to shape the future Wollongong Health Precinct, including:

- A patient-centred health precinct for the Illawarra;
- A well-connected and people friendly environment;
- New, lively, attractive and revitalised places for everyone to enjoy;
- A distinct and welcoming public domain;
- Fostering partnerships between business, research and education;
- Resilient and designed for future needs; and
- Great homes that can suit the needs of more people.

The *Engagement Outcomes Report* has been released in November 2024 and a draft Wollongong Health Precinct Strategy has been exhibited between Thursday 24 April and Wednesday 11 June 2025. The draft strategy sets out the vision for the Wollongong Health Precinct being "*a leader in regional based healthcare and research,*

complemented by partnerships in health, education, training and business". It states that "*the Precinct is collaborative in form and function, with its services and places supporting healthy, sustainable and inclusive communities*".

The draft strategy also highlights 5 "big moves" towards the vision, including:

- Big move 1: a research and education hub helping to shape a sustainable and innovative health system;
- Big move 2: a connected and active 'city west';
- Big move 3: an accessible and inclusive transport network helping move with choice;
- Big move 4: improved services to support an interconnected and innovative workforce; and
- Big move 5: a connected, green and vibrant public domain anchored by a network of welcoming communal meeting places.

The strategy provides a long-term plan extending to 2050. It will act as a guide to inform future development and amendments to planning controls, and strategic directions to inform public and private investment.

Wollongong Local Strategic Planning Statement (LSPS, 2025-2045)

The City of Wollongong Council's *LSPS* (adopted in July 2025) was prepared to guide land use planning over the next 20 years. The LSPS sets out the vision for Wollongong with its "*housing, employment precincts, recreational spaces and natural areas being resilient, diverse and well connected, and supporting a thriving an innovative economy"*.

The LSPS outlines 12 planning priorities under three main themes, including:

Sustainable and resilient

- Rehabilitate and protect natural environments and ecosystems;
- Resilient to climate risks and environmental hazards;
- Access to green and healthy urban open spaces and streets.

Liveable and Connected

- The natural, built and cultural context informs the design of places and buildings;
- Grow the capacity for housing so community have access to diverse and high-quality homes in the future;
- The network of Centres provides for the needs of community;
- Transport options are safe, reliable and accessible;
- The city reflects the creativity, history, density of people; invites community participation, and contributes to a diverse economy.

Productive and Vibrant

- Employment generating uses are prioritised in Centres and industrial areas;
- The freight network is efficient, from international trade to the last mile;
- Port Kembla's industrial precinct and Port are a hub for economic growth, employment and innovation;
- The growing visitor economy celebrates natural and cultural assets.

Shellharbour Local Strategic Planning Statement (LSPS, 2022)

The Shellharbour City Council's *LSPS* (updated in July 2022) creates a land use vision for the future of Shellharbour LGA. It provides details on which Council can base planning decisions and drive future land use planning and management of growth in the City based on economic, social and environmental needs over the next 20 years.

The vision of the LSPS is that "*we work collaboratively to deliver our planning priorities and actions while strengthening our community identity and quality of lifestyle in Shellharbour City. In 2040 our community enjoys and respects our natural environment. Our urban and built environments are well connected, accessible and adaptable our economy is thriving and offers diverse business and employment opportunities*".

It is envisaged that by 2041, the population of Shellharbour LGA will grow to 102,950 people and will require an additional 13,436 dwellings between 2021 and 2041. The number of those aged 60+ is expected to increase by approximately 60% over the next 20 years, whilst those aged under 19 is expected to increase by almost 44% over the same period.

Illawarra Shoalhaven Local Health District Strategic Delivery Plan 2023-2028

The *Illawarra Shoalhaven Local Health District Strategic Delivery Plan 2023-2028* sets a clear direction for the organisation with a strong focus on serving the community, planning for the future and better engaging with customers.

The main purpose of the Plan is to provide best practice health care and programs that promote the health and wellbeing of people in the Illawarra Shoalhaven with the vision of "*excellent services, quality partnerships, health communities*".

The Plan has identified six focus areas:

1. Positive experiences and outcomes that matter;
2. Safe care is delivered across all settings;
3. People are healthy and well;
4. Staff are engaged and well supported;
5. Research, innovation and digital; and
6. Health system is managed sustainably.

1.4 Data and Information Sources

Macroplan's research draws on a wide range of information sources including: various planning and strategic documents (Local, State and Federal), NSW Department of Planning, Housing and Infrastructure (DPHI)'s Projections, Australian Bureau of Statistics (ABS), Census data (2016 & 2021) and various latest statistics; and relevant experience throughout NSW and Australia, with particular reference to socio-economic profiles, industry trends, and recent property market trends in the Illawarra-Shoalhaven region generally.

1.5 Limitations

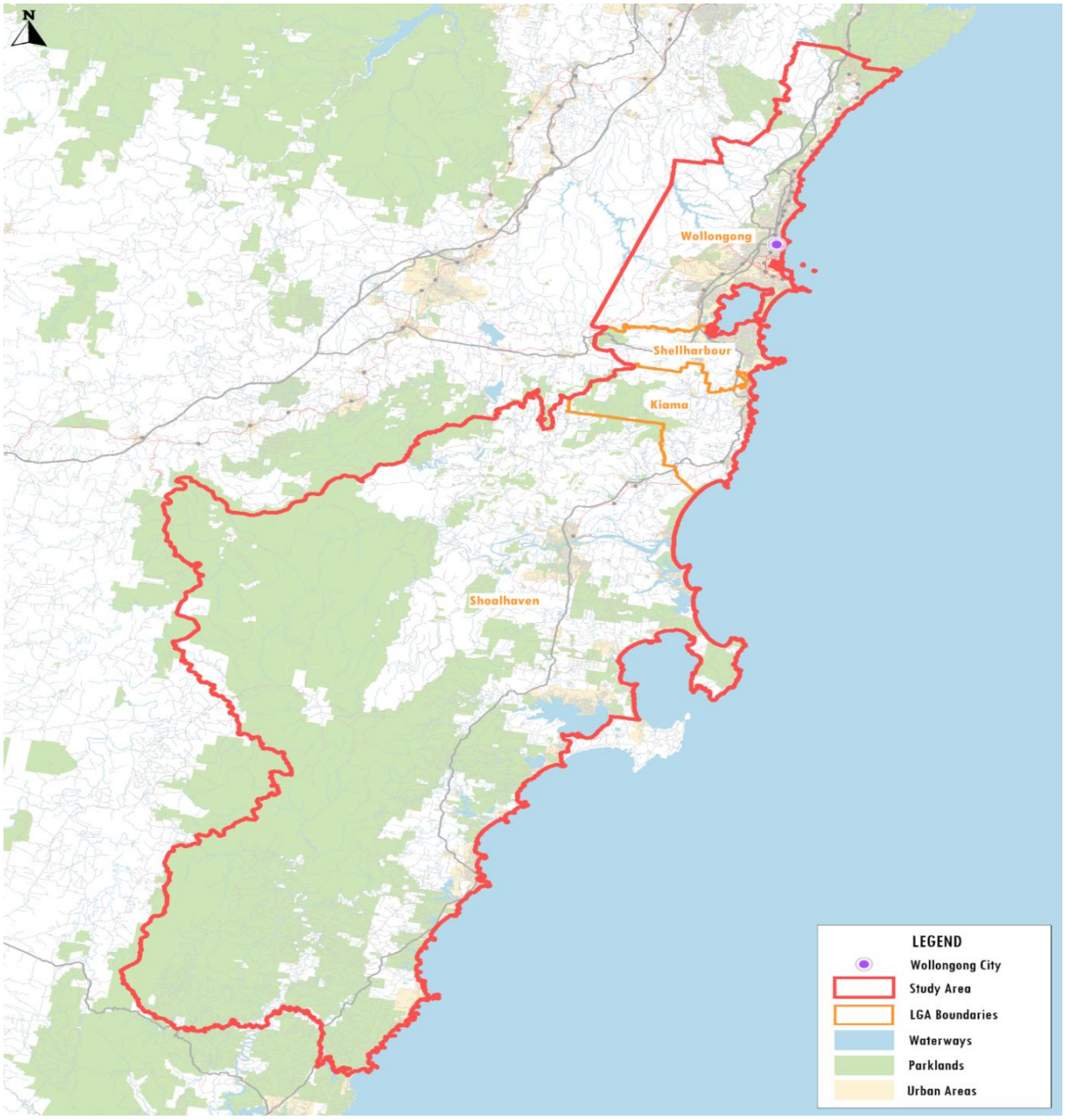
The information in this report has been obtained from, and opinions herein are based on, sources believed to be reliable. Although great care has been taken to ensure accuracy and completeness in this report, Macroplan have not independently verified and does not accept responsibility for its completeness and accuracy of the information on which its opinions and assumptions are based. Further, as the report involves future forecasts, it can be affected by several unforeseen variables. It represents for the party to whom or which it is addressed the best estimates of Macroplan, but Macroplan can give no assurance that any forecasts will be achieved.

2 Study Area Delineation

Consistent with the 2022 assessment, Macroplan have utilised the Illawarra Shoalhaven Local Health District ISLHD as the study area (see Figure 5). This represents the area in which we expect the largest source of demand for health care services (i.e., private hospital beds) will stem from. The ISLHD is comprised of the following LGAs:

- Wollongong LGA,
- Shellharbour LGA,
- Kiama LGA, and
- Shoalhaven LGA.

Figure 5 Private Hospital Study Area



Source: Macroplan

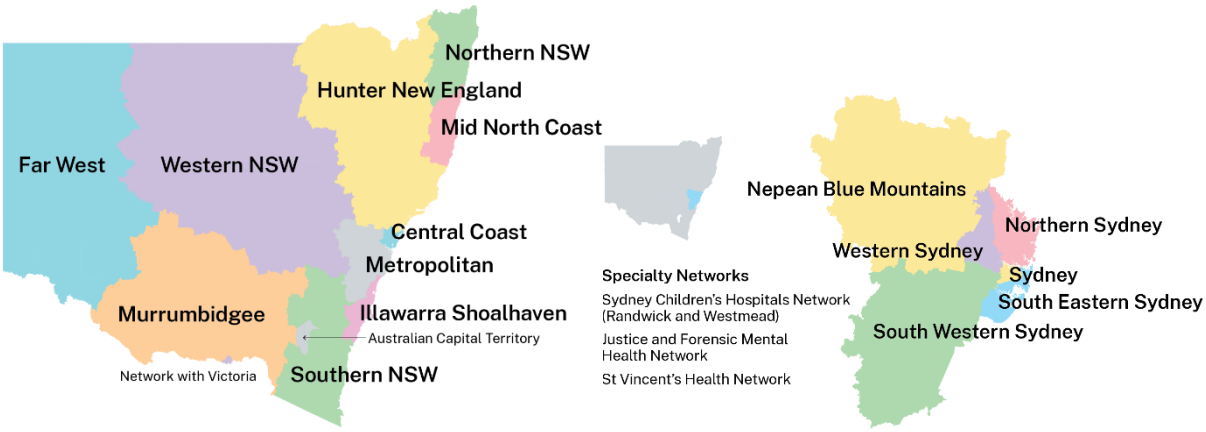
New South Wales Local Health Districts (NSWLHDs) were established by the NSW Government in 2011 with the objective of delivering healthcare across the region with locally-made decisions, and empower clinicians and the community, and are considered statutory corporations under the Health Services Act 1997.

Currently, there are eight Local Health Districts (LHD) covering the Greater Sydney region whilst seven cover rural and regional NSW (Figure 6). LHDs are responsible for the total management of public hospitals and healthcare clinics and institutions, with the primary purpose of providing relief to sick and injured patients through the provision of health care services to specific geographical areas of the state. LHDs are also responsible for promoting, protecting and maintaining the community's health.

The ISLHD extends about 250km along the coastal strip from Helensburgh in the north to North Durras in the south, servicing a population of more than 400,000 residents. It is one of the region's largest employers with a workforce of more than 7,300 across eight hospital sites and community health services with an annual budget of more than $900 million.

The District's vision "Excellent services, quality partnerships, health communities" is underpinned by the Strategic Directions for Illawarra Shoalhaven Local Health District 2017-2020. The strategic plan sets a clear direction for ISLHD with a focus on serving the community, delivering safe and high-quality health services, planning for the future and better engaging with consumers.

Figure 6 NSW and Greater Sydney LHDs



Source: NSW Health

3 Health Care Trends Overview

In this section of the report, Macroplan reviewed recent trends of the health care industry and the key demographic profile that has been observed in the identified study area.

3.1 Overview of the Health Care Sector

Over the past 10 years, Australia's health industry has grown dramatically in size and reputation for its world leading technology, innovation, high professional skills, advanced research, development, and robust health system.

The health and social services sector are now the largest employer in the state and provide a significant contribution to the state's economy.

In 2021, the sector employed 553,916 people in NSW, 26% more than 5 years ago.

In terms of the industry economic contribution, in FY2023-24, the industry value-add of the health care and social assistance contributed 7.1% to NSW GSP.

The rise of the health care system can be attributed to many factors, but notable factors include:

- An ageing population.
- Rise of chronic disease.
- Increasing wealth thus capacity to afford services.
- Low levels of physical activity – in 2022, only 5.6% of 15-17 year old, 22.5% of 18-64 year old and 33.4% of 65 year old Australian's met the Physical Activity Guidelines (set by Dept. Health).
- Increased levels of people considered overweight or obese.
- Increasing knowledge hence increased ability to diagnose and treat.
- Increased Government spending.

The onset of COVID-19, with the first case recorded in January 2020 in NSW, required hospitals to ensure sufficient capacity was maintained to cater for an increase in incoming patients. As of the latest available data published by NSW Health, there were a total of 595,793 cases admitted to hospital across NSW during January 2020 to January 2025, of which 37,441 were in intensive care.

The health sector will continue to grow and with improving efficiency and technology, IBIS world expects that industry revenue to grow at a pace faster than employment. With growth in both revenue and employment expected, health will continue to be key to Australia's economy.

3.2 Overview of Hospitals in Australia

Hospitals are an important part of Australia's health care system. In Australia, public hospitals are largely owned and managed by state and territory governments, and private hospitals are owned and managed by private for-profit and not-for-profit organisations. All hospitals can receive funding from governments, individuals, and insurers.

Australia has more than 1,300 public and private hospitals that, in 2022-23, collectively provided almost 33.2 million days of patient care. This is an increase since 2018-19 when 30.9 million days of patient care were provided.

Spending on Hospitals

Public and private hospitals are funded from a range of sources, including the Australian Government, state and territory governments, private health insurance funds and out-of-pocket payments by individuals. In 2022-23, 63% ($13.6 billion) of the estimated $21.5 billion spent on private hospitals was funded by the non-government sector, primarily from private health insurance providers, approximately a 10.6% increase since 2018-19.

Hospital Activity

Admission to hospital is an administrative process. It follows a medical officer's decision that a patient needs to be admitted for appropriate management or treatment of their condition, and/or for appropriate care or assessment of their needs. Patients may be admitted and discharged on the same day or may stay in hospital for one or more nights.

In 2022-23, there were 12.1 million hospitalisations in Australia's public and private hospitals, with the private sector accounting for about 5.0 million (41%). Between 2018-19 and 2022-23, the number of hospitalisations has increased by an average of 1.3% per year (2.1% for private hospitals) which is just higher than the population growth rate over this period (1.3% per annum).

In 2022-23, 7.7 million (or 63%) hospitalisations were for patients who were admitted and discharged on the same day. For private hospitals, between 2018-19 and 2022-23, same-day hospitalisations increased by 11.1%.

Table 1 Characteristics of Admitted Patient Care, Australia, 2022-23

2022-23	Public Hospitals	Private Hospitals	All Hospitals
Hospitalisations	7.1 million (+1.1% p.a.*)	5.0 million (+2.1% p.a.*)	12.1 million (+1.3% p.a.*)
Medical	5.0 million	1.6 million	6.6 million
General intervention (Surgical)	1.1 million	1.7 million	2.8 million
Specific intervention (Other)	477,000	1.0 million	1.5 million
Childbirth	218,000	64,200	282,000
Mental health care	136,000	218,000	354,000
Sub-acute and non-acute care	217,000	383,000	600,000
Same-day versus overnight	56% (SD); 44% (O)	74% (SD); 26% (O)	63% (SD); 37% (O)
Number of days of patient care	22.8 million (+2.4% p.a.*)	10.4 million (+0.7% p.a.*)	33.2 million (+1.8% p.a.*)
Average length of stay (overnight)	6.0 days	5.1 days	5.7 days

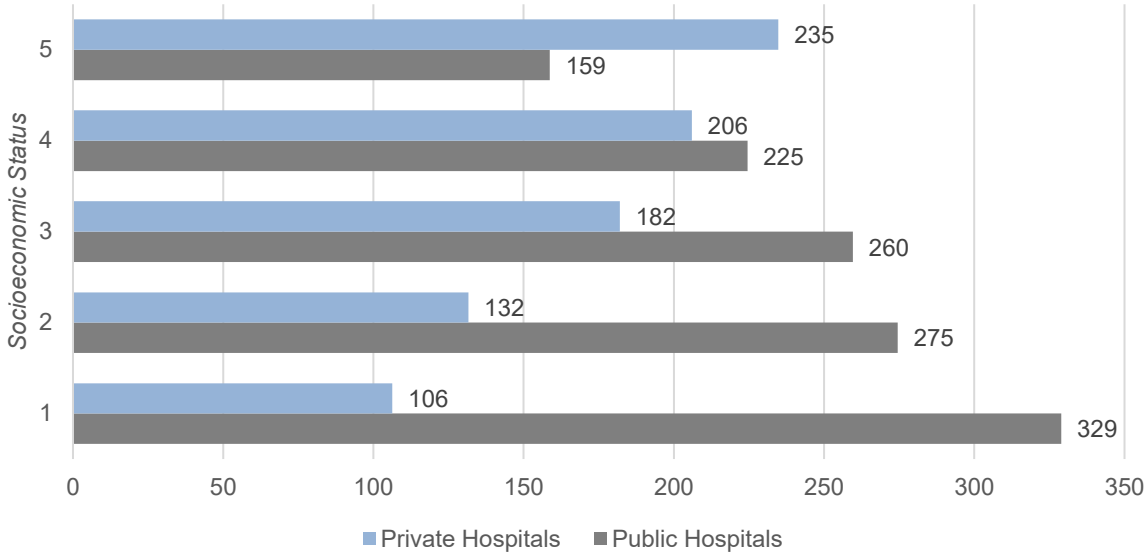
** Average annual increase since 2018-19*
Source: Australian Institute of Health and Welfare (AIHW), Australia's Hospitals at a Glance 2022-23

Access to Hospitals

The number and type of hospitals and the beds available are measures of access to health care services. In 2022-23, hospitalisation rates varied across levels of socioeconomic disadvantage for public and private hospitals. For private hospitals, the highest rates were for patients living in the least disadvantaged areas (235 hospitalisations per 1,000 population) with hospitalisation rates decreasing as the level of disadvantage increases. For public

hospitals, the highest rates of hospitalisation were for patients living in the most disadvantaged areas (329 hospitalisations per 1,000 population) with rates decreasing as the level of disadvantage decreases.

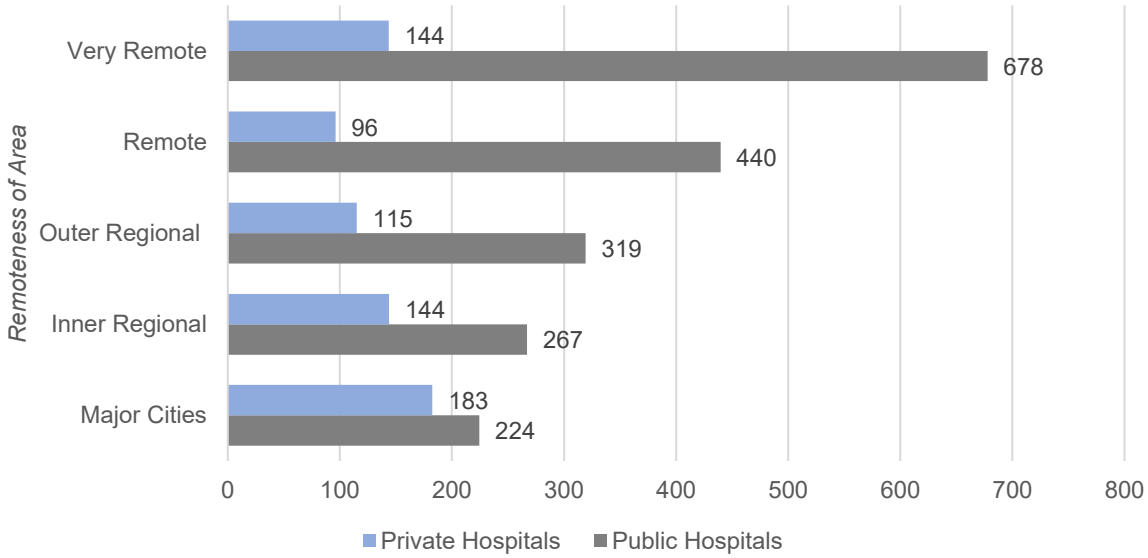
Figure 7 Hospitalisations per 1,000 Population by Socioeconomic Disadvantage of Usual Residence, 2022-23



Source: AIHW, Australia's Hospitals at a Glance 2022-23

Patterns of hospitalisations also varied by remoteness area; the highest rates of hospitalisation in private hospitals were for patients whose area of residence was in major cities, whereas the highest rates of hospitalisations in public hospitals were for patients whose area of residence was in very remote areas. Hospitalisations in public hospitals increased with increasing remoteness of the patient's area of residence, while hospitalisations in private hospitals decreased with increasing remoteness of the patient's area of residence.

Figure 8 Hospitalisations per 1,000 Population by Remoteness Area of Usual Residence, 2022-23



Source: AIHW, Australia's Hospitals at a Glance 2022-23

3.3 Australia's Long Term National Health Plan

In 2019 the Federal Government released the *Long Term National Health Plan* in order to chart the way forward over the next 3 and 10 years in keys area of mental health, primary care, hospitals, preventative health and medical research. The reform plan consists of four key pillars:

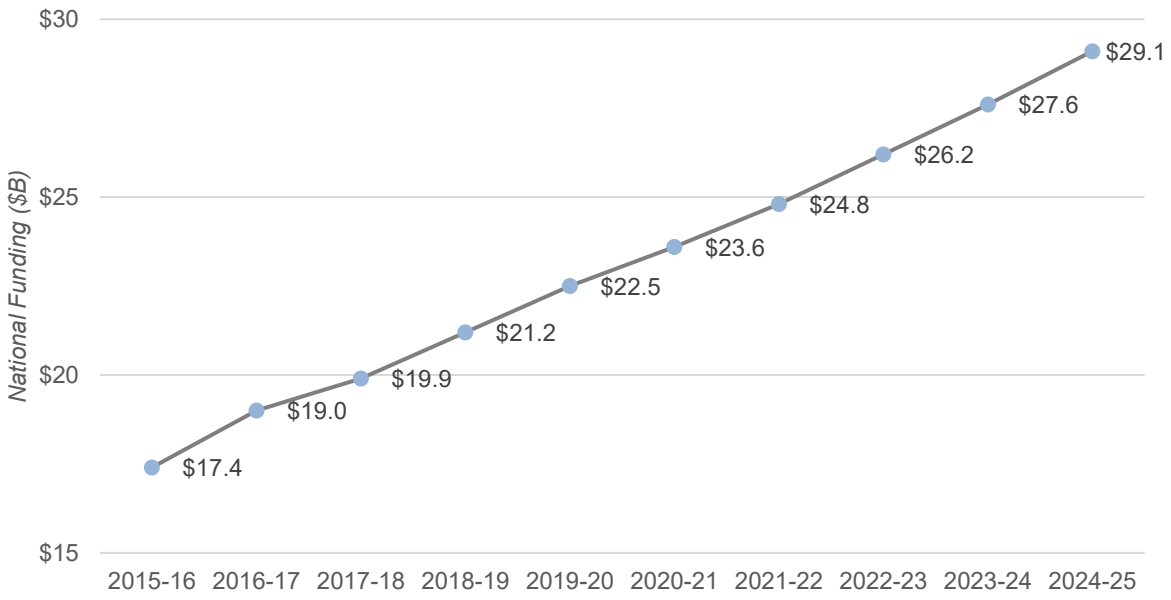
- **Pillar 1**: Guaranteeing Medicare and improving access to medicines through the Pharmaceutical Benefits Scheme (PBS).
- **Pillar 2**: Supporting our public and private hospitals, including improvements to private health insurance
- **Pillar 3**: Prioritising mental health and preventative health
- **Pillar 4**: Investing in health and medical research

As set out in Pillar 2, hospitals in all states and territories will benefit from yearly funding increases via the *Our Community Health and Hospitals Program* (announced in the 2019-20 Budget) which has allocated $1.25 billion for a range of infrastructure and community health projects across the nation.

Another objective identified within Pillar 2 of the Plan includes the completion of a second wave of private health insurance reform, largely catalysed by the success of the first wave of reform which has made private health insurance simpler, easier to understand, more affordable and flexible (i.e., consumers can now choose higher excess levels to lower their premiums).

The second wave will largely be focused on tackling out-of-pocket costs which arise when medical professionals charge more than the rebate provided by Medicare and private health insurers. The Government has worked with the Australian Medical Association to improve the information provided to patients before they undergo certain types of surgery or procedures. A website is also being developed, in consultation with consumers, medical professionals and insurers, to make sure everyone is clear about specialist fees and costs.

Figure 9 Total Australian Government Hospital Funding

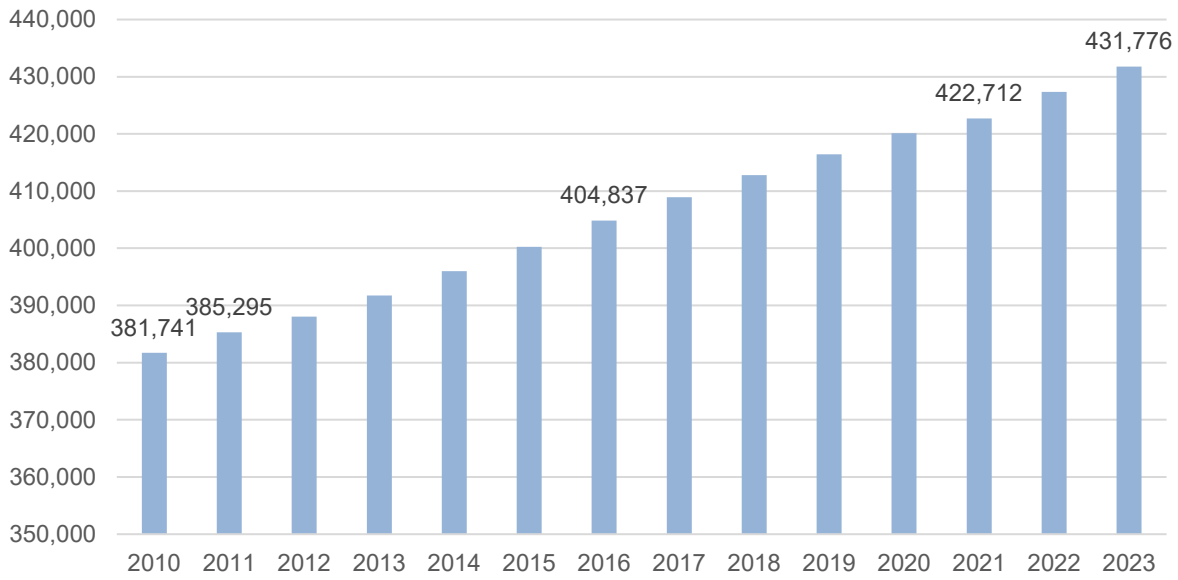


Source: Australian Government Department of Health, Australia's Long Term National Plan 2019

3.4 ISLHD Historical Population Trends

As illustrated in Figure 10, the total population of the ISLHD has been on an upward trajectory with growth seen in all four LGAs. Between 2010 and 2023, the ISLHD has grown by 50,035 residents, equating to a compound annual growth rate (CAGR) of 1.0% per annum. The highest growth was seen in Wollongong LGA which grew by 18,673 residents, followed by Shoalhaven LGA (+14,741 persons) and Shellharbour (+14,141 persons) over the same period.

Figure 10 Historical Estimated Resident Population (ERP), ISLHD, 2010 – 2023



Source: ABS ERP

3.5 ISLHD Population Projections

The NSW Government Department of Planning, Housing and Infrastructure (DPHI) publishes detailed projections of population, households, and dwelling demand over the 20 years to 2041 by LGA and SA2. The latest set of projections released in 2024 update and replace the 2022 projections, which has been developed based on data from the 2021 Census of Population and Housing and the ABS Estimated Resident Population in 2021 as the base for the projections.

The DPHI (2024) projections provide a good guide to future population in the study area. However, we would note the following:

- The projections reflect a medium to long-term view on the likely trend growth in potential population based on supply (of housing) and demand factors, and also are broadly consistent with the historical share of NSW growth the region has captured.
- Less weight should be attached to yearly growth numbers and we note that over 2021-23, the ABS preliminary estimates of actual growth are below the numbers in the DPHI (2024) projections. While this suggests downside risk to the projection for 2026, given the potential for periods when growth is above

trend offsetting this and potential for revisions to the ABS estimates, Macroplan is comfortable with the 5-yearly projections out to 2041.

The main risk to the population projections is the assumed growth for NSW which underpins it. In that regard, we would note that this is heavily influenced by the level of net overseas migration (NOM) into Australia and NSW and net interstate migration (NIM) out of NSW – over the past 30 years, NOM has accounted for 75% of NSW growth and NIM has subtracted 25%.

Looking at projected growth over the next 10 years 2024-34, the Centre for Population (2024) in its latest annual projections for NSW has marginally lifted its projected growth for NSW and these sit marginally above the NSW DPHI (2024) projections. Other things equal, higher NSW growth will feed into higher growth in the study area.

The upshot is that, while noting both upside and downside risks, Macroplan views the population projections as a reasonable basis for assessing demand.

3.5.1 ISLHD

The ISLHD, as a whole, is expected to grow by 152,751 residents from 2021 to 2041 at a CAGR of 1.6%.

Throughout the observed time-period the ISLHD is expected to grow by the following proportions:

- 2021-2026: Increase by 38,875 residents to reach 461,587 (CAGR of 1.8%).
- 2026-2031: Increase by 38,296 residents to reach 499,883 (CAGR of 1.6%).
- 2031-2036: Increase by 37,932 residents to reach 537,815 (CAGR of 1.5%).
- 2036-2041: Increase by 37,648 residents to reach 575,463 (CAGR of 1.4%).

Looking at the shorter term (2021–2026), age cohorts with the largest growth are expected to be those aged 65+ (+12,483 persons) followed by those aged 35-44 (+7,317 persons).

Table 2 Population Projections, ISLHD, 2021 – 2041

ISLHD Age	2021	2026	2031	2036	2041	CAGR 2021-31	CAGR 2031-41
0-19	99,660	108,339	115,522	123,066	131,516	1.5%	1.3%
20-24	26,557	29,802	33,573	34,896	35,776	2.4%	0.6%
25-34	52,052	59,062	63,718	68,883	73,426	2.0%	1.4%
35-44	49,864	57,181	63,453	68,651	72,638	2.4%	1.4%
45-54	51,320	52,651	56,721	64,251	70,241	1.0%	2.2%
55-64	54,854	53,662	54,538	56,350	61,018	-0.1%	1.1%
65+	88,405	100,888	112,355	121,714	130,843	2.4%	1.5%
Total	**422,712**	**461,585**	**499,880**	**537,811**	**575,458**	**1.7%**	**1.4%**

Source: DPHI (2024)

3.5.2 Wollongong LGA

Wollongong LGA is expected to grow by 73,973 residents from 2021 to 2041 at a CAGR of 1.5%.

Throughout the observed time-period, Wollongong LGA is expected to grow by the following proportions:

- 2021-2026: Increase by 18,826 residents to reach 233,526 (CAGR of 1.7%).
- 2026-2031: Increase by 18,645 residents to reach 252,072 (CAGR of 1.5%).
- 2031-2036: Increase by 18,369 residents to reach 270,441 (CAGR of 1.4%).
- 2036-2041: Increase by 18,232 residents to reach 288,673 (CAGR of 1.3%).

Looking at the shorter term (2021–2026), age cohorts with the largest growth are expected to be those aged 25-34 (+4,819 persons) followed by those aged 65+ (+4,212 persons).

Table 3 Population Projections, Wollongong LGA, 2021 – 2041

Wollongong Age	2021	2026	2031	2036	2041	CAGR 2021-31	CAGR 2031-41
0-19	51,537	55,655	59,006	62,567	66,630	1.4%	1.2%
20-24	16,048	18,271	20,524	21,298	21,773	2.5%	0.6%
25-34	28,949	33,768	36,875	39,949	42,587	2.4%	1.5%
35-44	26,776	30,094	33,373	36,248	38,462	2.2%	1.4%
45-54	26,658	26,922	28,470	31,959	34,892	0.7%	2.1%
55-64	25,813	25,683	26,135	26,838	28,800	0.1%	1.0%
65+	38,919	43,131	47,687	51,583	55,528	2.1%	1.5%
Total	**214,700**	**233,524**	**252,070**	**270,442**	**288,672**	**1.6%**	**1.4%**

Source: DPHI (2024)

3.5.3 Kiama LGA

Kiama LGA is expected to grow by 2,180 residents from 2021 to 2041 at a CAGR of 0.5%.

Throughout the observed time-period, Kiama LGA is expected to grow by the following proportions:

- 2021-2026: Increase by 558 residents to reach 23,528 (CAGR of 0.5%)
- 2026-2031: Increase by 546 residents to reach 24,074 (CAGR of 0.5%)
- 2031-2036: Increase by 540 residents to reach 24,614 (CAGR of 0.4%)
- 2036-2041: Increase by 536 residents to reach 25,150 (CAGR of 0.4%)

Looking at the shorter term (2021–2026), age cohorts with the largest growth are expected to be those aged 65+ (+424 persons) followed by those aged 0-19 (+222 persons).

Table 4 Population Projections, Kiama LGA, 2021 – 2041

Kiama Age	2021	2026	2031	2036	2041	CAGR 2021-31	CAGR 2031-41
0-19	5,146	5,368	5,488	5,553	5,681	0.6%	0.3%
20-24	959	1,038	1,091	1,115	1,083	1.3%	-0.1%
25-34	2,034	2,064	2,106	2,158	2,198	0.3%	0.4%
35-44	2,491	2,636	2,666	2,735	2,771	0.7%	0.4%
45-54	2,740	2,818	2,993	3,217	3,320	0.9%	1.0%
55-64	3,408	2,990	2,900	2,934	3,091	-1.6%	0.6%
65+	6,192	6,616	6,830	6,901	7,005	1.0%	0.3%
Total	**22,970**	**23,530**	**24,074**	**24,613**	**25,149**	**0.5%**	**0.4%**

Source: DPHI (2024)

3.5.4 Shellharbour LGA

Shellharbour LGA is expected to grow by 32,977 residents from 2021 to 2041 at a CAGR of 1.8%.

Throughout the observed time-period, Shellharbour LGA is expected to grow by the following proportions:

- 2021-2026: Increase by 8,420 residents to reach 84,912 (CAGR of 2.1%).
- 2026-2031: Increase by 8,258 residents to reach 93,170 (CAGR of 1.9%).
- 2031-2036: Increase by 8,180 residents to reach 101,350 (CAGR of 1.7%).
- 2036-2041: Increase by 8,119 residents to reach 109,469 (CAGR of 1.6%).

Looking at the shorter term (2021–2026), age cohorts with the largest growth are expected to be those aged 0-19 (+2,422 persons) followed by those aged 65+ (+1,944 persons).

Table 5 Population Projections, Shellharbour LGA, 2021 – 2041

Shellharbour Age	2021	2026	2031	2036	2041	CAGR 2021-31	CAGR 2031-41
0-19	19,766	22,188	24,084	26,031	28,135	2.0%	1.6%
20-24	4,686	5,329	6,226	6,536	6,775	2.9%	0.8%
25-34	9,776	11,172	12,072	13,193	14,157	2.1%	1.6%
35-44	9,401	11,222	12,815	14,025	14,926	3.1%	1.5%
45-54	9,631	9,818	10,643	12,370	13,812	1.0%	2.6%
55-64	9,600	9,604	9,871	10,170	11,090	0.3%	1.2%
65+	13,632	15,576	17,459	19,024	20,574	2.5%	1.7%
Total	**76,492**	**84,909**	**93,170**	**101,349**	**109,469**	**2.0%**	**1.6%**

Source: DPHI (2024)

3.5.5 Shoalhaven LGA

Shoalhaven LGA is expected to grow by 43,621 residents from 2021 to 2041 at a CAGR of 1.7%.

Throughout the observed time-period, Shoalhaven LGA is expected to grow by the following proportions:

- 2021-2026: Increase by 11,071 residents to reach 119,621 (CAGR of 2.0%).
- 2026-2031: Increase by 10,946 residents to reach 130,567 (CAGR of 1.8%).
- 2031-2036: Increase by 10,843 residents to reach 141,410 (CAGR of 1.6%).
- 2036-2041: Increase by 10,761 residents to reach 152,171 (CAGR of 1.5%).

Looking at the shorter term (2021–2026), age cohorts with the largest growth are expected to be those aged 65+ (+5,903 persons) followed by those aged 35-44 (+2,033 persons).

Table 6 Population Projections, Shoalhaven LGA, 2021 – 2041

Shoalhaven Age	2021	2026	2031	2036	2041	CAGR 2021-31	CAGR 2031-41
0-19	23,211	25,128	26,944	28,915	31,070	1.5%	1.4%
20-24	4,864	5,164	5,732	5,947	6,145	1.7%	0.7%
25-34	11,293	12,058	12,665	13,583	14,484	1.2%	1.4%
35-44	11,196	13,229	14,599	15,643	16,479	2.7%	1.2%
45-54	12,291	13,093	14,615	16,705	18,217	1.7%	2.2%
55-64	16,033	15,385	15,632	16,408	18,037	-0.3%	1.4%
65+	29,662	35,565	40,379	44,206	47,736	3.1%	1.7%
Total	**108,550**	**119,622**	**130,566**	**141,407**	**152,168**	**1.9%**	**1.5%**

Source: DPHI (2024)

3.6 ISLHD Socio-demographic Assessment

The below table outlines key socio-demographic features within all four LGAs comprising of the ISLHD as of Census 2021.

- Wollongong, Kiama, Shellharbour and Shoalhaven LGA have a smaller household size (around 2.3-2.6) when compared to Greater Sydney (2.7).
- The most dominant age cohorts in Wollongong, Kiama and Shoalhaven LGAs are those aged 35-54, whereas the most dominant age cohort for Shellharbour LGA are those aged 0-19. The median age across each LGA is higher compared to Greater Sydney (37).
- More than 78% of residents in each of the LGAs are Australian born residents, significantly higher than that of Greater Sydney (59.5%)
- The most common family composition is couple families with children in Wollongong and Shellharbour LGAs followed by couples without children, which is as opposed to Kiama and Shoalhaven LGAs where the most dominant family composition is couple without children.
- In terms of housing tenure, the majority of households are identified as owner occupiers (i.e. purchased outright or with mortgage) which is greater than that of Greater Sydney.
- Residents are generally car-dependent exemplified by 90% of households owning one or more cars, which is in line with the trends seen in Greater Sydney.

Table 7 Socio-demographics, ISLHD LGAs and Greater Sydney, 2021

2021	Wollongong	Kiama	Shellharbour	Shoalhaven	Greater Sydney
Census Population	214,564	23,074	76,271	108,531	5,231,147
Average household size (persons)	*2.5*	*2.5*	*2.6*	*2.3*	*2.7*
Average household income ($ p.a.)	*$87,704*	*$95,630*	*$85,879*	*$65,179*	*$108,301*
Age Distribution (% of population)					
0-19	23.6%	22.0%	25.5%	21.0%	24.0%
20-34	20.6%	12.8%	18.6%	14.5%	22.1%
35-54	25.0%	22.7%	24.9%	21.6%	27.6%
55-64	12.1%	14.9%	12.7%	14.8%	11.1%
65-74	9.7%	15.6%	10.3%	15.7%	8.4%
75-84	6.2%	8.6%	5.8%	9.1%	4.8%
85+	2.7%	3.4%	2.2%	3.2%	2.0%
Median Age (years)	*39*	*48*	*39*	*48*	*37*
Birthplace (% of population)					
Australian born	78.1%	84.8%	83.1%	85.6%	59.5%
Overseas born	21.9%	15.2%	16.9%	14.4%	40.5%
Family Type (% of household)					
Couples with no children	26.0%	36.3%	27.8%	34.1%	24.4%
Couples with children	30.5%	30.4%	33.3%	22.6%	36.0%
One parent families	11.7%	7.9%	14.2%	11.1%	10.9%
Other families	1.0%	0.8%	1.0%	0.9%	1.3%
Lone person	26.4%	22.7%	21.6%	28.5%	23.2%
Group households	4.5%	1.9%	2.1%	2.7%	4.2%
Car Ownership (% of household)					
0 Cars	8.5%	3.6%	5.2%	4.5%	11.4%
1 Car	36.4%	32.0%	32.4%	38.9%	40.1%
2 Cars	36.4%	42.7%	39.3%	37.8%	32.7%
3+ Cars	18.7%	21.7%	23.1%	18.8%	15.9%
Dwelling Tenure (% of household)					
Owned outright	34.2%	47.4%	33.9%	44.7%	27.8%
Owned with a mortgage	32.0%	30.4%	36.7%	27.1%	33.3%
Rented	31.0%	17.8%	26.7%	24.2%	35.9%
Other	2.9%	4.5%	2.7%	4.1%	3.0%

Source: ABS Census 2021

4 Gap Assessment

In this section of the report, Macroplan assessed the supply and demand of private hospital beds driven by residents from within the ISLHD.

4.1 Methodology

To forecast the demand for private hospital beds within the study area, Macroplan have applied the following methodology to the gap assessment. The methodology is structured as follows:

- Derive the 2024 Population Projections (by 5-year age cohorts) from the DPHI to determine the forecasted residential population within the ISLHD for each 5-year period from 2021 to 2041.
- Convert population by age projections into effective demand by applying the NSW age-specific separation rates[3] (*Admitted Patient Care 2022–23*, released by the Australian Institute of Health and Welfare or AIHW) to determine the average number of separations[4] per annum for each 5-year age cohort.
- Calculate the net effective demand for private hospital beds by multiplying the average length of stay[5] by the total number of separations (per 5-year age cohort) for each 5-year period.
- Calculate the total oversupply / undersupply of private hospital beds by subtracting the total number of existing and projected hospital beds by the total net effective demand for hospital beds within the study area between 2021 and 2041.

The above methodology has been used to forecast separation numbers and the demand for private hospital beds within the ISLHD, which is shown in the following sub-sections.

4.2 Population Projections by Age

Based on the DPHI (2024) population projections the study area is anticipated to undergo steady growth between 2021 and 2041, increasing at an average growth rate of 1.6%. As presented in Table 8, as of 2021 the study area has a total estimated population resident of 422,712 persons. The total residential population is expected to increase to 461,587 by 2026, 499,883 by 2031, 537,815 by 2036, and 575,463 by 2041.

[3] *The total number of episodes of care for admitted patients divided by the total number of persons in the population under study.*
[4] *The administrative process by which a hospital records the cessation of an episode of care for a patient within the one hospital stay.*
[5] *An occupancy rate of 70% (i.e., 256 days of a year) is assigned to the demand for beds, based on industry standards.*

Table 8 Population Projections by Age, ISLHD, 2021 – 2041

ISLHD	2021	2026	2031	2036	2041
0 - 4	23,878	25,978	28,719	30,415	32,374
5 - 9	25,098	26,283	28,461	31,079	32,699
10 - 14	25,863	27,092	28,135	30,377	32,918
15 - 19	24,821	28,986	30,207	31,195	33,525
20 - 24	26,557	29,802	33,573	34,896	35,776
25 - 29	26,126	29,786	31,735	35,162	36,499
30 - 34	25,926	29,276	31,983	33,721	36,927
35 - 39	25,561	29,106	31,969	34,440	36,081
40 - 44	24,303	28,075	31,484	34,211	36,557
45 - 49	26,011	25,874	29,879	33,259	35,907
50 - 54	25,309	26,777	26,842	30,992	34,334
55 - 59	27,060	26,022	27,539	27,764	32,040
60 - 64	27,794	27,640	26,999	28,586	28,978
65 - 69	25,096	27,873	28,154	27,883	29,547
70 - 74	23,132	24,315	27,287	27,883	27,954
75 - 79	16,902	21,244	22,635	25,643	26,477
80 - 84	11,867	14,195	18,096	19,590	22,472
85+	11,408	13,261	16,183	20,715	24,393
Total	**422,712**	**461,585**	**499,880**	**537,811**	**575,458**

Source: DPHI (2024)

4.3 Separations & Bed Requirement

As defined in the methodology, separation rates vary between age cohorts, with the older age cohorts having higher rates of separation within the study area. Particularly, when noting that the population of the study area is generally ageing, it indicates that the number of separations per capita will generally increase in the foreseeable future. The older population also has a longer average length of stay, driving an increase in average length of stay over time. It is noted that these factors have impacted the of supply and demand of services within the study area, as reflected in Table 9 and 10.

The average separation rate for each 5-year age cohort was applied to the population projections by age (Table 8) in order to calculate the total number of separations (i.e. effective demand) between 2021 and 2041. As presented in Table 9, the total number of separations is estimated at 81,870 in 2021 based on the current separation rate per 1,000 population benchmark for private hospitals in NSW. This figure will increase to 90,517 by 2026, 99,042 by 2031, 107,081 by 2036 and 115,183 by 2041, as population continues to grow during the forecast period.

Table 9 Total Separations, ISLHD, 2021 – 2041

ISLHD	*Separations per 1,000 Population*	Total Separations				
Age	*Benchmark*	2021	2026	2031	2036	2041
0 - 4	*43.9*	1,048	1,140	1,260	1,334	1,420
5 - 9	*24.6*	618	647	701	766	805
10 - 14	*24.6*	637	667	693	748	811
15 - 19	*62.1*	1,540	1,799	1,874	1,936	2,080
20 - 24	*62.1*	1,648	1,849	2,083	2,165	2,220
25 - 29	*82.8*	2,164	2,467	2,629	2,912	3,023
30 - 34	*82.8*	2,147	2,425	2,649	2,793	3,059
35 - 39	*125.5*	3,207	3,652	4,011	4,321	4,527
40 - 44	*125.5*	3,049	3,523	3,950	4,292	4,587
45 - 49	*162.7*	4,232	4,209	4,861	5,411	5,842
50 - 54	*162.7*	4,118	4,356	4,367	5,042	5,586
55 - 59	*252.5*	6,832	6,570	6,953	7,009	8,089
60 - 64	*252.5*	7,017	6,978	6,816	7,217	7,316
65 - 69	*433.6*	10,881	12,085	12,207	12,090	12,811
70 - 74	*433.6*	10,030	10,543	11,831	12,090	12,120
75 - 79	*609.3*	10,298	12,944	13,791	15,624	16,132
80 - 84	*609.3*	7,231	8,649	11,026	11,936	13,692
85+	*453.5*	5,173	6,014	7,339	9,394	11,062
Total	***177.9***	**81,870**	**90,517**	**99,042**	**107,081**	**115,183**

Source: ABS; AIHW (2022-23); DPHI (2024); Macroplan

Of the total separations in private hospitals, approximately 73.8% are same-day separations and 26.2% are overnight separations, as reported by AIHW in 2022-23. AIHW also reported the average length of overnight stay in private hospitals in NSW was 5.7 nights in 2022-23, whilst same day separations have an average length of stay of half a day. Additionally, an occupancy rate of 70% (i.e. 256 days) is applied to the total estimated stays to calculate the total number of private hospital beds required for residents within the study area (i.e. net effective demand).

Table 10 Total Beds Required, ISLHD, 2021 – 2041

ISLHD	*Benchmarks*	2021	2026	2031	2036	2041
Separations	*Share*					
Same-day	*73.8%*	60,428	66,810	73,102	79,036	85,016
Overnight	*26.2%*	21,442	23,707	25,940	28,045	30,167
Total Separations		**81,870**	**90,517**	**99,042**	**107,081**	**115,183**
Length of Stay	*Avg Length of Stay*					
Same-day	*0.5*	30,214	33,405	36,551	39,518	42,508
Overnight	*5.7*	122,221	135,130	147,857	159,859	171,954
Total Stays		**152,435**	**168,535**	**184,409**	**199,377**	**214,461**
Bed Required	*Avg Occupancy*					
Same-day	*70%*	118	131	143	155	166
Overnight	*70%*	478	529	579	626	673
Total Bed Required		**597**	**660**	**722**	**780**	**839**

Source: ABS; AIHW (2022-23); DPHI (2024); Macroplan

As demonstrated in Table 10, when applying the benchmarks of same-day / overnight share, average length of stay and occupancy rate, the private hospital beds required for residents within the study area converts to a total of 597 in 2021. This figure will increase to 660 by 2026, 722 by 2031, 780 by 2036 and 839 by 2041.

4.4 Gap Assessment

Research undertaken by Macroplan indicates that there is currently a provision of 485 private hospital beds within the study area, including 171 beds located within the existing Wollongong Private Hospital.

Further to this, analysis of future health projects currently in the pipeline indicate that the Illawarra International Health Precinct is approved for a 10 overnight hospital beds within its stage 1 development of a Specialist and Surgical Centre planned to be delivered in 2026. The current plans for the Illawarra International Health Precinct also indicate another 10 overnight beds in the stage 3 development of a medical centre, 20 overnight beds in the stage 4 development of an obstetric unit, and a further 303 overnight beds in the stage 5 development of a tertiary referral hospital. Whilst these future stages are still at early concept planning phase, this would total 343 overnight beds within the precinct should it be approved.

It is also noted that there is planned expansion to the Nowra Private Hospital, however, no information is available currently in relation to the detailed plans including any additional beds. Another mooted health project known as Wollongong Lift City Holistic Health Centre involves a Hi-Tech Holistic Cancer & Medical Centre with 320 overnight beds planned. This project is also at early concept planning phase.

The current and proposed supply of private hospitals is contained in Appendix 1.

To calculate the overall theoretical balance of private hospital beds within the study area, the total supply of existing hospital beds is subtracted by the total number of private hospital beds required (i.e. net effective demand) within the study area between 2021 and 2041.

Based on observations of existing and approved future supply, the gap analysis indicates that there is estimated a shortage of 112 private hospital beds as of 2021. Moving forward, as the study area's resident population continues to grow steadily, it is estimated that the shortage of private hospital beds within the study area will increase to 165 beds by 2026, then further to 227 by 2031, 285 by 2036 and 344 by 2041.

Table 11 Private Hospital Beds, Gap Assessment, ISLHD, 2021 – 2041

ISLHD	2021	2026	2031	2036	2041
Population	437,362	461,585	499,880	537,811	575,458
Total Separations	81,870	90,517	99,042	107,081	115,183
Total Bed Demand	597	660	722	780	839
Total Bed Supply	485	495	495	495	495
Theoretical Demand / Supply Balance	**-112**	**-165**	**-227**	**-285**	**-344**

Source: ABS; AIHW (2022-23); DPHI (2024); Macroplan

It is noted that the gap analysis considered the approved future supply only, which excludes the future stages of the Illawarra International Health Precinct and the mooted Wollongong Lift City Holistic Health Centre, both of which have been known about for some time but are still at early concept planning phase. Both projects are planned to be comprehensive health precinct developments involving large-scale hospitals of over 300 beds each. Should

both projects be approved and developed during the forecast period, a significant number of extra private hospital beds of over 600 would be added within the study area. Whilst this might lead to a theoretical oversupply of private hospital beds, given their uncertain status, the likelihood of this happening is low. Moreover, with continuing population ageing and rising awareness of health and wellbeing, driving the demand for health facilities well ahead of population growth, there is upside to demand.

4.5 Summary of Findings

Macroplan's analysis reveals that there is a need for additional private hospital beds within the ISLHD, in order to cater to its growing and ageing population, as well as their increasing health needs. Macroplan understand that the Wollongong Private Hospital expansion will create capacity to deliver an addition of 90-100 hospital beds on site upon completion. Our findings indicate that there will be an increasing undersupply of private hospital beds within the ISLHD for the foreseeable future.

In light of this, if approved, the proposed development could provide a key contribution in addressing the current and future private hospital bed supply shortfall in a timely manner.

5 Employment Generation

In this section, Macroplan examined the likely economic impacts, employment creation and potential role in contributing to the employment future of Wollongong LGA and the local and regional economy. The assessment considered the employment returns that are achievable as a result of the proposed hospital expansion.

The proposed expansion can support local employment by increasing employment floorspace and maintaining local employment objectives, while promoting key local industries and generating more employment during the planning, construction, operation, and maintenance stages.

To quantify the potential economic and employment impacts from the proposed expansion, ABS Input-Output (I-O) tables are used as a basis for calculating the flow-on impacts of initial capital expenditure upon local and wider economy in the construction sector both directly and indirectly. The key economic indicators assessed include employment, economic output and industry value added.

Three elements to the impact of expansion on industries within the local and regional economy have been considered in the assessment:

- Direct impacts including employment, economic output and industry value added created in that industry, such as construction and healthcare and social assistance based on the Australian and New Zealand Standard Industrial Classification (ANZSIC).
- Production induced indirect impacts, which include the amount of employment, output and value added required from all industries of the economy to produce the initial investment and all the subsequent induced output, such as manufacturing of building material / equipment, transport, postal and warehousing of material / equipment, professional, scientific and technical services, financial and insurance services, administrative and support services, and other services that support the construction and operation of the hospital expansion.
- Consumption induced indirect impacts, which include the amount of employment, output and value added required from all industries of the economy to support the commodities and services that spent by wage and salary earners to produce the initial investment and the production induced output, such as, employees' spending their incomes at local supermarkets, retail, accommodation and food services, health and education, and various services.

More information relating to the economic impact assessment methodology, limitations and glossary of terms is contained in Appendix 2.

5.1 Development Phase

The capital investment for the proposed hospital expansion was estimated at approximately $128.0 million (excluding GST) based on the estimated development cost prepared by Genus Advisory dated 4 December 2025.

Assuming a 2-year construction timeframe, it is expected that the construction of the proposal expansion will generate approximately 149 full-time equivalent (FTE) jobs per annum directly in the construction industry during the construction phase, based on the ABS I-O multipliers. This will flow through the economy and create flow-on

impacts of another approximately 187 production induced indirect FTE jobs (e.g. manufacturing, professional, scientific and technical services, transport, postal and warehousing, etc.) and 208 consumption induced indirect FTE jobs (e.g. health care and social assistance, education and training, retail trade, etc.) per annum elsewhere in the economy. This totals approximately 544 direct and indirect FTE jobs per annum during the construction phase.

5.2 Post-development

The proposed development can support the local employment in the suburb of Wollongong and the wider Wollongong LGA by maintaining employment floorspace availability and employment objectives, supporting increased onsite and induced employment, while promoting industry diversification throughout the lifecycle of the proposed development.

In the 2022 report, it was indicated that the hospital component of the proposed expansion was anticipated to support an additional 180 direct FTE jobs[6] on site when fully operational at an annual basis. Given Ramsay has since reduced their requirement from 172 beds to 70-90 beds, it is estimated that the hospital component of the proposed expansion is expected to support approximately 70-95 FTE jobs.

Further, the proposed expansion involves a total of 7,160 sqm of commercial space available to a variety of health related and other tenants to locate, which is expected to support additional on-site employment generation. Assuming an average employment density of 35-40 FTE per sqm based on the outcomes of the *City of Sydney Floor Space and Employment Survey* (2022), the commercial space is expected to support approximately 180-205 direct FTE jobs on site if fully occupied.

The new 72-key medi-hotel will also support both clinical and non-clinical employment. Based on industry standards, average employment densities of 1 clinical related FTE per 10 beds and 1 non-clinical FTE per 5 beds have been assumed, given no provision of kitchen and common facilities. This indicates around 22 FTE jobs to be supported by the medi-hotel during its stabilised operation.

This totals approximately 275-320 direct FTE jobs on site upon completion, which will further support indirect employment, output and value added at an ongoing basis.

Based on the I-O multipliers, it is estimated that the direct onsite employment is likely to generate another 50-58 production induced indirect FTE jobs and a further 220-260 consumption induced FTE jobs elsewhere in the economy. This totals approximately 545-637 direct and indirect FTE jobs upon completion at an ongoing basis.

The ongoing operation of the expanded hospital and commercial space will also create additional economic output and value added to industries. This can also be estimated using the ABS I-O multipliers, which is summarised in Table 12 below.

[6] *This includes an estimate of 160 full-time employees and 40 part-time employees (i.e. contractors) at an ongoing basis on site. This was supplied by the Wollongong Private Hospital operator at the time of preparation of the 2022 report.*

Table 12 Wollongong Private Hospital Expansion Estimated Ongoing Impacts

Indicator	Direct	Indirect		Total Impact	Ratio Total to Direct
		Production Induced	Consumption Induced		
Employment (FTE)	274-320	50-58	221-259	545-637	1.99
Output ($M)	$39.4-$46.1	$18.3-$21.3	$64.6-$75.7	$122.3-$143.0	3.10
Value Added ($M)	$26.6-$31.2	$9.1-$10.6	$46.9-$55.0	$82.6-$96.8	3.10

Source: ABS, City of Sydney Floor Space and Employment Survey, Ramsey, Macroplan

5.3 Wider Community Benefits

In addition to the above benefits in employment growth and economy, the proposed expansion is also anticipated to deliver a range of community benefits to the local and wider regions, which may not be quantified.

While the proposed expansion is part of the Wollongong Private Hospital, the improved facilities and services will be available for both private and public patients including the new Emergency Department, which can be delivered through the co-existence and co-working with the public system, given the proximity to the Wollongong Public Hospital. This will significantly strengthen the overall health service capacity and capability of the Wollongong Health Precinct as a whole for local residents in Wollongong and the wider ISLHD, so some patients do not need to travel to Sydney for treatment. The improved provision of health services is expected to lead to greater health outcomes for local residents.

The co-location of the expanded Wollongong Private Hospital with Wollongong Private Hospital and other health related facilities and services in the surrounds will also create a level of economic aggregation effects, land use synergy, and industry partnership opportunities within and surrounding the Health Precinct and the wider Wollongong CBD.

Overall, the proposed expansion is anticipated to enhance the fast growing health sector, and further strengthen and diversify the economic profile and employment base of Wollongong.

6 Other Considerations

In this section of the report, Macroplan considered other economic and community impacts that are achievable as a result of the proposed expansion of the subject hospital.

6.1 Contribution to the Health Care System and Supporting Australia's Ageing Demographic

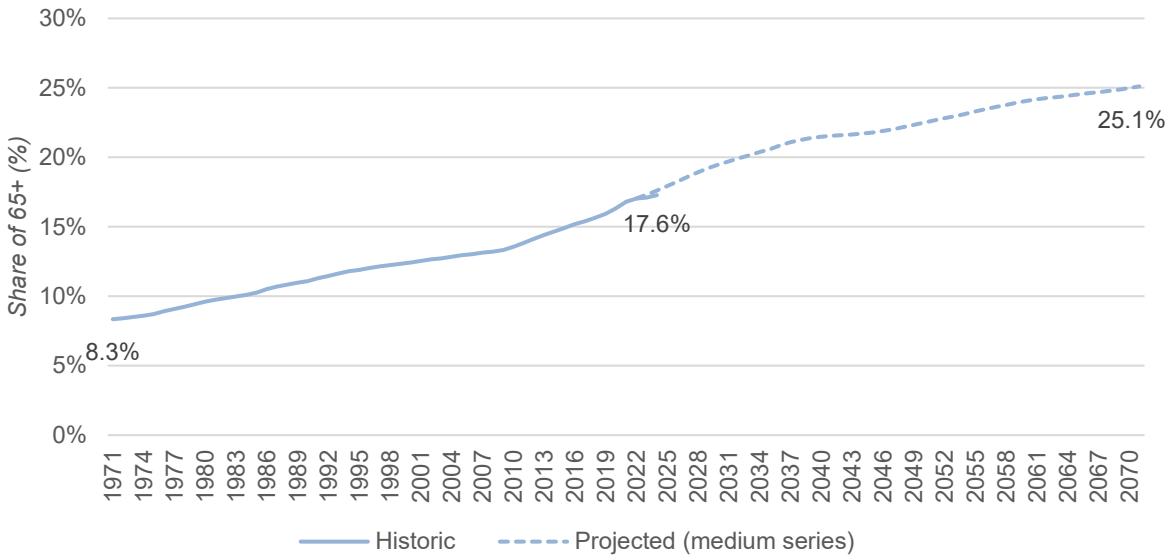
6.1.1 Ageing Population

Australia's population is ageing, due to increasing life expectancy and declining fertility rates. Since 2011, when the first of the baby boomer generation turned 65, there has been a notable increase in both the number of older persons and the proportion of the total population that is 65 and over. Age is an important determinant of health as ageing is accompanied by increased risk of declining health and functional limitations.

The latest data from the ABS statistics (up to 2024) and national population projections (2022-71) as presented in Figure 11 indicates that:

- As of 30 June 2024, there were an estimated 4.7 million Australians aged 65 years and over, comprising 17.3% of the total Australian population.
- The number of Australians aged 65+ has increased from 1.0 million (8.3% of the total population) in 1970 and doubled in 1992 with over 2.0 million aged 65+ or 11.5%.
- The number and percentage of older Australians is expected to continue to grow. By 2071, it is projected that elderly people in Australia will reach over 9.8 million aged 65+, making up 25.1% of the total population according to ABS's latest national population projections (medium series).
- For those aged 85+, the proportion has increased from 0.5% (66,930) in 1971, to 1.1% (190,400) in 1995, to 2.1% in 2024 (581,511), and is anticipated to continue to rise to somewhere around 5.2% in 2071.

Figure 11 Percentage of Population Aged 65+, Australia, at 30 June, 1971 – 2071

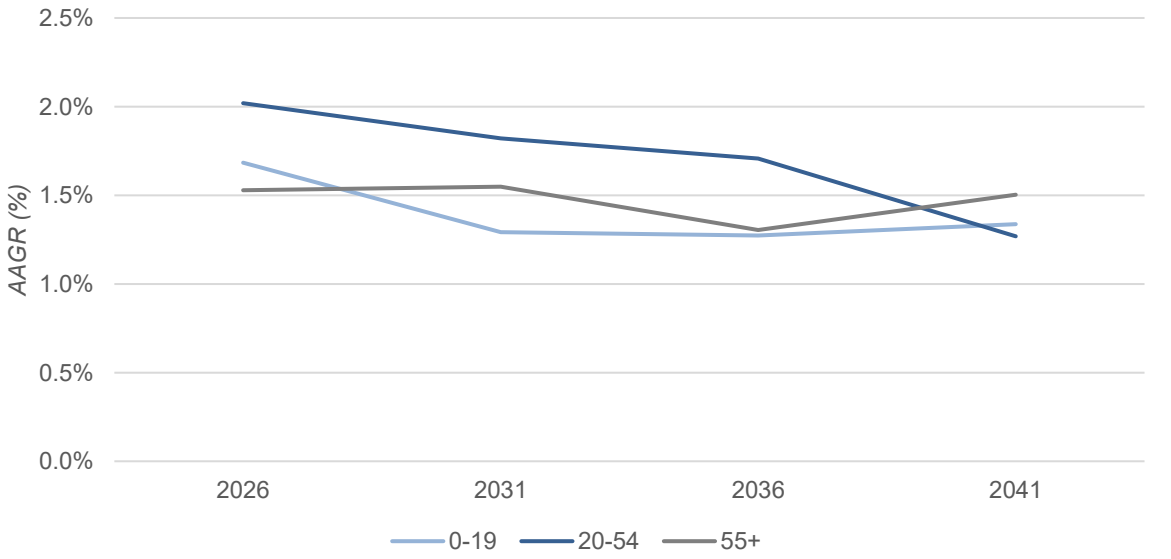


Source: ABS

Australia's trend of an ageing population is one that can be directly attributed to the projected residential population of the study area. Between 2021 and 2041 the population of older residents aged 55+ is expected to increase by around 48,600 people at an average annual growth rate of 1.5% (+2,430 persons per annum), as well as an average annual growth rate of 1.7% in the 20-54 years age cohort and 1.4% in the 0-19 age cohort.

As discussed earlier, elderly people are generally more likely the users of health services than younger people, and as such, demand is expected to increase with the ageing population. In the meantime, demand for health services among other age cohorts are also growing, particularly households with young children, families planning to have children and people with chronic health conditions, Therefore, it is critical to ensure that sufficient resources are dedicated to local health care sectors in order to prepare and cater to both the imminent wave of older population and a wide range of demographic cohorts in the immediate future.

Figure 12 Average Annual Population Growth Rates by Age Cohorts, ISLHD, 2026 – 2041



Source: DPHI (2024)

6.1.2 Key Challenges

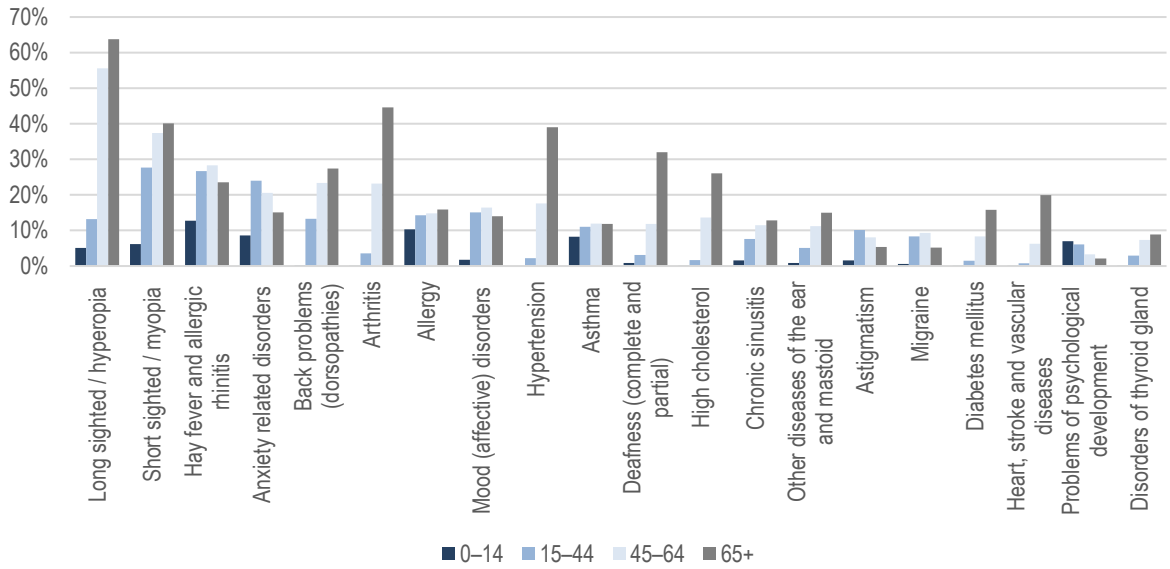
Changing Health Profiles

Australia's ageing demographic is expected to present several challenges to the healthcare system, given the larger number of elderly people, the fact that many health conditions and associated disability become more common with age, and that elderly people are more likely the users of health services. Direct challenges for the health system will include changing health profiles, increasing demand for health service uses, and rising health costs.

The 2022 *National Health Survey* shows that the proportion of Australians living with chronic illness is heavily skewed to the older age cohorts. The survey indicates several most common health conditions (excluding long- and short sightedness and allergies) for the 65+ age cohorts were the following:

- Arthritis – 44.6% of the 65+ age cohort (compared to 23.2% for the 45-64 age cohorts);
- Hypertension – 39.0 (compared to 17.6% for the 45-64 age cohort);
- Deafness – 32.0% (compared to 11.8% for the 45-64 age cohort);
- Back problems – 27.4% (compared to 23.4% for the 45-64 age cohorts);
- High cholesterol – 26.1% (compared to 13.6% for the 45-64 age cohorts);
- Heart, stroke and vascular diseases – 19.9% (compared to 6.3% for the 45-64 age cohorts); and
- Diabetes – 15.8% (compared to 8.3% for the 45-64 age cohorts).

Figure 13 Most Common Chronic Conditions by Age Cohort, Australia, 2022

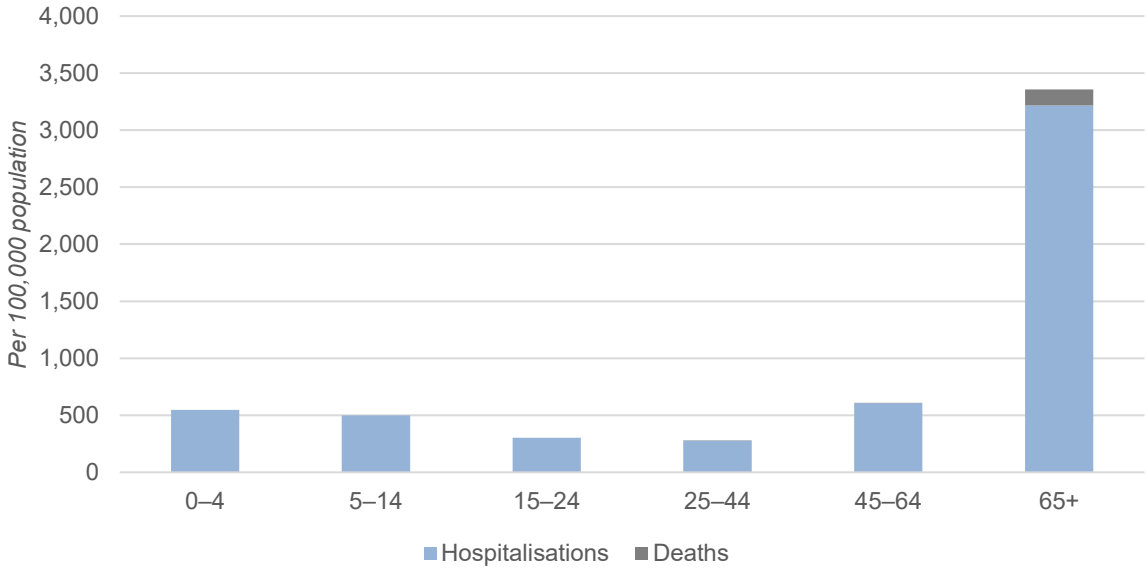


Source: National Health Survey 2022

Looking at the older demographic there are also other concerning factors apart from chronic illness. A key example is 'falls' which are Australia's largest contributor to hospitalised injuries and a leading cause of injury death, with 904.2 hospitalisations per 100,000 people and 24.7 deaths per 100,000 population in 2022-23 (43.4% of the total hospitalised injuries and 42.9% of the total injury deaths were due to falls). There has also been an average annual increase of 0.6% for hospitalisations during 2013-14 and 2022-23 and an average annual increase of 1.7% for deaths during 2013-14 and 2012-22 caused by falls.

People aged 65+ were more likely to be hospitalised or die due to a fall compared with other life-stages, with the very oldest most at risk (15,250 hospitalisations per 100,000 people aged 95+). For falls in 2022-23, the 65+ age cohorts accounted for 3,218 hospitalisations per 100,000 people and 138 deaths per 100,000 people (61% of hospitalisations and 95% of deaths caused by falls were for people aged 65+).

Figure 14 Fall Injury Hospitalisations & Deaths by Age Cohort, Australia, 2022-23



Source: AIHW (2022-23)

Increasing Demand for Health Services

Demand for health services is affected by many factors, but elderly people are generally more likely the greater users of health services than younger people, and so demand is expected to increase with the ageing population. The following trends were observed in the 2023-24 ABS *Patient Experience Survey* for the defined year:

- 4.2 million of the 65+ age cohorts (95.5%) saw a GP at least once compared to 79.3% for the 15-64 age cohorts.
- 60.5% of the 85+ age cohorts saw a specialist at least once compared to 34.4% for the 15-64 age cohorts.

Further, AIHW also indicates that:

- In 2022-23, the hospitalisation rate for the 65+ age cohorts ranged from 877 to 1,826 per 1,000 population, compared to 86 to 660 for the 0-64 age cohorts.
- The 65+ age cohorts accounted for 24% of the 8.8 million emergency department presentations.
- In 2022-23, the top 3 reasons for hospitalisation of the elderly people (i.e. 65+ years) were other factors influencing their health status (which includes examinations, investigations, observation, evaluation and other health management), neoplasms, and musculoskeletal system diseases.
- During the same year, the top 3 reasons for the elderly people (i.e. 65+ years) to present to emergency departments were symptoms, signs and abnormal findings, injury and poisoning, and circulatory system disease.

Greater use of health services by elderly people also has implications for the health workforce. The health labour force in Australia is large and diverse, covering many occupations, ranging from highly qualified professionals to

support staff and volunteers. An ageing population will require an adequate health workforce – in terms of numbers, distribution, and skill set – to meet changing needs and increased demand[7].

6.1.3 Key Response to an Ageing Demographic

As outlined above, the ageing of the population presents a number of challenges to Australia's health system. This means that the mix and quantum of services required by society, and the ways in which they are funded and delivered, will need to change as the population ages. The most fundamental and basic approach in which the health care sector can adapt and respond to Australia's ageing population is through appropriate and time-sensitive planning and delivery of modern infrastructure that can support the day-to-day operations of medical services (i.e., employment floorspace, hospital beds, medical equipment) required to support the growing proportion of the elderly population.

Further to this, actions should also be taken to enhance the productivity and efficiency of health care delivery in general, in order to ensure that the future of the health care system is not only equipped to support future demand, but measures are set in place to ensure that that these services can be delivered in a format that supports anticipated demand. Key examples include improving health technology assessment processes and review, promoting evidence-based clinical practice and encouraging cost-effective investment in preventative health.

6.2 Providing Educational and Vocational Training Platforms for Prospective Medical Practitioners

Macroplan note that expanding the existing hospital will also create additional opportunities to provide vocational training and educational platforms for university medical students, particularly those studying at the Wollongong University. Macroplan also note that the Wollongong Hospital currently offers a wide range of employment opportunities for prospective doctors, nurses and other healthcare professionals, which facilitate pathways for workers to experience and learn about the private health care sector and grow their career.

Furthermore, as noted in Section 4, there is a growing requirement for more hospital beds, which largely corresponds with a requirement for more medical/hospital staff such as doctors, nurses and other healthcare professionals, which can only be enabled by providing more on-the-job vocational training and workplace opportunities. With an increasingly growing and ageing population, there is a greater need to train more healthcare professionals. An increase in quality clinical placements is required to ensure that more healthcare professionals are able to perform their clinical roles after they graduate.

By expanding the subject hospital, it will have additional capacity to facilitate employment opportunities for prospective health practitioners via a comprehensive platform of internal collaboration, workplace education and on-the-job vocational training – three key elements to entering the healthcare industry.

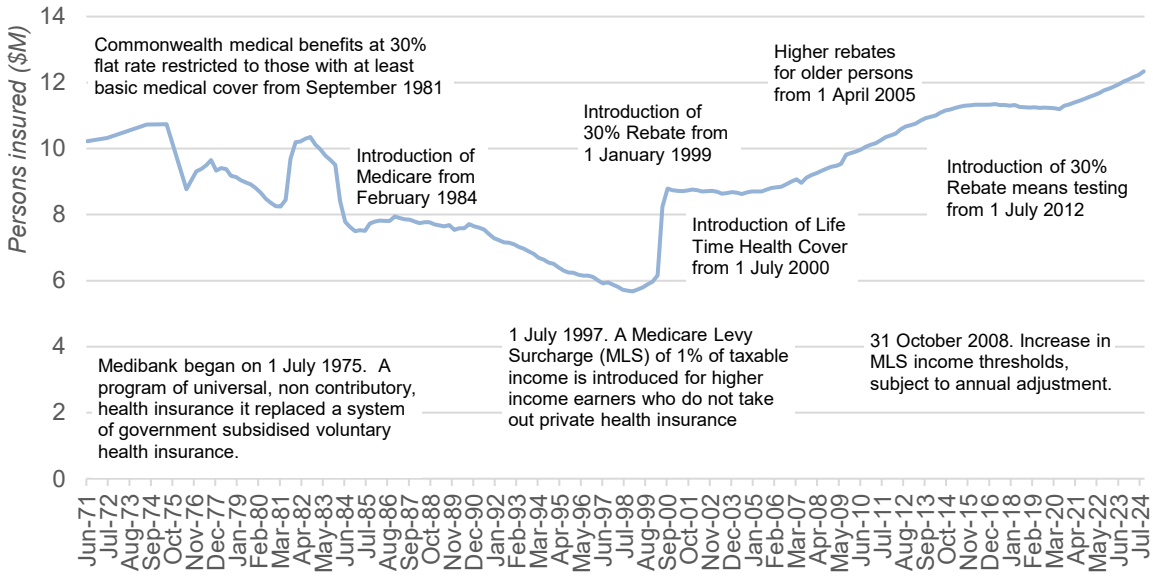
[7] *Scott, Health care workforce crisis in Australia: too few or too disabled? Medical Journal of Australia (2009).*

6.3 Private Health Insurance Trends

Based on trends observed over the past 20 years, the number of people with private health insurance coverage is expected to increase for the foreseeable future, which will require a corresponding increase in private health care services that are available to this market segment. As illustrated in Figure 15, since September 1971 (introduction of Medibank) the number of people with Total Hospital Treatment Coverage[8] (THTC) has increased from 10.2 million to reach 12.3 million in September 2024. Despite some fluctuation across the observed time period, including a period of gradual decline in coverage between 1987 and 1998, THTC has benefited form an average annual growth rate of 0.6% over the past 50 years.

Notably, following the introduction of the Medicare Levy Surcharge in 1997 (which saw a sharp increase of 2.8 million people with THTC), the number of people with THTC has seen consistent year-on-year growth with little fluctuation over the 27 years to date, increasing at an average annual growth rate of 2.8%.

Figure 15 Total Hospital Treatment Coverage Insured Persons, Australia, 1971 – 2024



Source: Australian Prudential Regulation Authority (APRA), Private Health Insurance Membership Trends (2024)

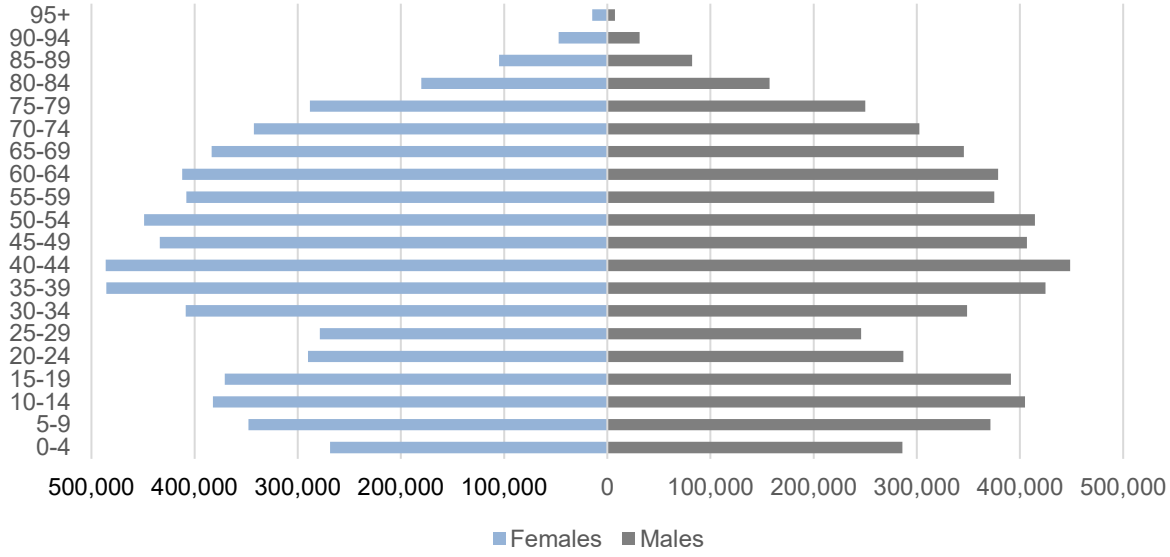
The ageing population (which is increasing in the study area) has partially driven growth in private health insurance coverage. Elderly people tend to have greater private health insurance coverage than younger people. This disparity is due to the greater wealth accumulated by elderly people, which enables them to pay for private health insurance, along with their increased health issues that require services not covered by Medicare.

As of September 2024, the number of Hospital Treatment Insured Persons aged 65+ years was recorded at 2.5 million reflecting 20% of all insured persons. This indicates a total increase of 1.5 million older persons (average annual growth of 4.4%) and a proportional increase of 8.2% over the past 20 years.

[8] *Assists with the costs of treatment as a private patient in hospital.*

According to the Australian Prudential Regulation Authority (APPA), as of September 2024, 12.3 million Australians (45% of the population) had Total Hospital Treatment coverage, whilst 15.2 million (55%) had Total General Treatment[9] coverage.

Figure 16 Hospital Treatment Insured Person by Age and Gender, Australia, September 2024



Source: Australian Prudential Regulation Authority (APRA), Private Health Insurance Membership Trends (2024)

6.4 Employment Containment

Job containment refers to residents who live and work in the same area as a share of total resident workers in that area. A high self-containment implies there are many jobs in an area which employs local people – evidence of a strong regional employment base. Through retention of spending and expenditure, local job creation can generate higher economic multipliers. The Wollongong – West SA2, where the subject hospital is located, currently achieves a self-containment level of 16.2%[10].

If the proposed expansion is not allowed, there will be no job creation arising from the potential hospital development/expansion and its operation. Without any local job creation, this means that the local area will become less self-contained with foregone employment growth and a reduced self-containment rate.

6.5 Industry Value Added (IVA)

Industry Value Added (IVA) is the sum of income from labour (wages), land (rent) and capital (profit) generated by the production of economic goods and services. The expansion of the hospital requires investment (profit), resulting in the creation of jobs (wages) in different industries. This may include the following other industries that contribute to the overarching healthcare industry's total income through wages and profit:

[9] *Assists with the costs of treatments outside of hospitals such as dental, optical, physiotherapy or pharmacy.*
[10] *ABS Census 2021.*

- Professional, scientific and technical services,
- Administrative and support services,
- Financial and insurance services,
- Rental, hiring and real estate services,
- Wholesale trade,
- Manufacturing,
- Transport, postal and warehousing, and
- Others.

The IVA in this case demonstrates the monetary value that the project will contribute to the local economy. In its developed form, the proposed hospital extension will employ 275-320 FTE direct workers including both hospital workers and commercial tenants. This could generate a direct Industry Value Added (IVA) of $26.6-$31.2 million per annum when fully operational.

7 Conclusion

This report provides an economic assessment supporting the resubmission of the SSDA for the proposed expansion of the subject hospital located at 360-364 Crown Street, Wollongong.

The proposed development is anticipated to support the local economy and complement other health care facilities within the local and wider study area by providing more employment floorspace and promoting industry diversification. It will also generate more employment during the planning, construction, operation and maintenance stages.

During the assumed 2 years of construction phase, the estimated capital investment of an estimated $128.0 million (excluding GST) is likely to generate approximately 149 FTE jobs per annum directly in the construction industry, plus another 187 production-induced indirect FTE jobs and a further 208 consumption-induced FTE jobs elsewhere in the economy.

When fully operational, the proposed expansion is expected to deliver a total of approximately 275-320 direct FTE jobs including both hospital jobs and jobs supported by the commercial space and the medi-hotel. It is noted that the operational employment outcome is subject to several variables including economic growth trajectory or systematic risk (e.g., recession, policy changes, international conditions). Therefore, the potential direct FTE jobs could be higher or lower than this estimate.

Further to this, the direct employment will have flow-on impacts and create another 50-58 production induced indirect FTE jobs and a further 220-260 consumption induced FTE jobs elsewhere in the economy.

In addition to delivering an exceptional employment outcome, the expanded hospital will also generate a number of social and economic benefits such as:

- Cater to the projected supply shortfall of private hospital beds within the ISLHD;
- Contribution to the health care system, improving local health service provision and supporting Australia's ageing demographic, as well as a wide range of demographic cohorts, contributing to greater health outcomes for local communities;
- Create economic aggregation effects, land use synergy, and industry partnership opportunities;
- Provide educational and vocational training platforms for prospective medical practitioners;
- Cater to the continued growth of persons using private health insurance coverage (particularly older persons);
- Enhance the fast growing health sector, and further strengthen and diversify the economic profile and employment base of Wollongong;
- Contribute to a potentially higher employment self-containment rate for the Wollongong LGA;
- Contribute to the local and regional economy through IVA.

Appendices

Appendix 1 Private Hospital Supply

Figure A1 Current Private Hospital Supply

Current Supply	LGA	Type	No. of Beds
Shellharbour Private Hospital	Shellharbour	Overnight	54
Nowra Private Hospital	Shoalhaven	Overnight	62
Figtree Private Hospital	Wollongong	Overnight	58
Ramsay Clinic Thirroul	Wollongong	Overnight	43
South Coast Private	Wollongong	Overnight	90
Victoria Street Private Hospital	Wollongong	Overnight	3
Wollongong Private Hospital	Wollongong	Overnight	171
Illawarra Private Cancer Care Centre	Wollongong	Day	4
Rosemont Endoscopy Centre	Wollongong	Day	N/A
Southern Medical Day Care Centre	Wollongong	Day	N/A
Wollongong Day Surgery	Wollongong	Day	N/A
Total			**485**

Source: NSW Health; HealthDirect; Various hospital websites; Macroplan

Figure A2 Proposed / Mooted Private Hospital Supply

Future Supply	LGA	Type	No. of Beds	Est Completion	Status
Nowra Private Hospital Expansion	Shoalhaven	Overnight	N/A	2027	Development Approval
Illawarra International Health Precinct Stage 1 Specialist and Surgical Centre	Wollongong	Overnight	10	2026	Building Approval
Illawarra International Health Precinct Stage 3 Medical Centre	Wollongong	Overnight	10	N/A	Early
Illawarra International Health Precinct Stage 4 Obstetric Unit	Wollongong	Overnight	20	N/A	Early
Illawarra International Health Precinct Stage 5 Tertiary Referral Hospital	Wollongong	Overnight	303	N/A	Early – long horizon
Wollongong Life City Holistic Health Centre Stage 3 Hi-Tech Holistic Cancer & Medical Hospital	Wollongong	Overnight	320	N/A	Doubtful

Source: Cordell Connect; NSW Government; Various; Macroplan

Appendix 2 Economic Impact Assessment Methodology

The Australian Bureau of Statistics (ABS) publishes the *Australian National Accounts: Input-Output (I-O) Tables* which provide detailed information about the supply and use of products in the Australian economy and the structure of and inter-relationships between Australian industries.

The ABS I-O Tables can translate into a series of I-O multipliers, including multipliers for economic output, employment, income and industry value added. The I-O multipliers are used as a way to estimate the economic impact of a change in demand for a product or service. They can be used to quantify the flow-on effect of a change in the output of an industry on one or more of imports, income, employment or output on individual industries, or in total. They can also be used to show "first-round" changes, or the aggregate effects once secondary effects have flowed through the system.

As an example, for every $1 investment in the construction sector, multipliers can be utilised to calculate the likely direct and indirect impacts on other industries in terms of output, employment, income and/or value added, both production and consumption induced.

The I-O multipliers a most commonly used tool to quantify the economic impacts (both direct and indirect) relating to policies and projects.

The latest ABS I-O Tables release of FY2021-22 have been used to derive the national I-O multipliers. Further, locational quotients based on employment by industry by each State during the same period have been applied, which adjusts the multipliers to a State / regional level.

However, it is worth noting that this methodology is based on limiting assumptions that results in multipliers being a biased estimator of the benefits or costs of a project. ABS indicated that the inherent shortcomings and limitations of multipliers for economic impact analysis include:

- **Lack of supply–side constraints**: The most significant limitation of economic impact analysis using multipliers is the implicit assumption that the economy has no supply–side constraints. That is, it is assumed that extra output can be produced in one area without taking resources away from other activities, thus overstating economic impacts. The actual impact is likely to be dependent on the extent to which the economy is operating at or near capacity.

- **Fixed prices**: Constraints on the availability of inputs, such as skilled labour, require prices to act as a rationing device. In assessments using multipliers, where factors of production are assumed to be limitless, this rationing response is assumed not to occur. Prices are assumed to be unaffected by policy and any crowding out effects are not captured.

- **Fixed ratios for intermediate inputs and production**: Economic impact analysis using multipliers implicitly assumes that there is a fixed input structure in each industry and fixed ratios for production. As such, impact analysis using multipliers can be seen to describe average effects, not marginal effects. For example, increased demand for a product is assumed to imply an equal increase in production for that product. In reality, however, it may be more efficient to increase imports or divert some exports to local consumption rather than increasing local production by the full amount.

- **Absence of budget constraints**: Assessments of economic impacts using multipliers that consider consumption induced effects (type two multipliers) implicitly assume that household and government consumption is not subject to budget constraints.

- **No allowance for purchasers' marginal responses to change**: Economic impact analysis using multipliers assumes that households consume goods and services in exact proportions to their initial budget shares. For example, the household budget share of some goods might increase as household income increases. This equally applies to industrial consumption of intermediate inputs and factors of production.

- **Not applicable for small regions**: Multipliers that have been calculated from the national I–O table are not appropriate for use in economic impact analysis of projects in small regions. For small regions multipliers tend to be smaller than national multipliers since their inter–industry linkages are normally relatively shallow. Inter–industry linkages tend to be shallow in small regions since they usually don't have the capacity to produce the wide range of goods used for inputs and consumption, instead importing a large proportion of these goods from other regions.

For reference, a number of glossary of terms relating to an economic impact assessment is listed below, according to ABS's *Information Paper – Australian National Accounts Introduction to Input-Output Multipliers*.

- **Input-output tables** provide a detailed dissection of intermediate transactions in an economy, and are thereby a means of describing the supply and use of the products of an entire economic system.

- **Input-output multipliers** are summary measures used for predicting the total impact on all industries in an economy of changes in the demand for the output of any one industry.

- **Output multipliers** for an industry (e.g. construction) are defined as the total value of production by all industries of the economy required to satisfy one extra dollar's worth of final demand for that industry's output.

- **Employment multipliers** correspond to the additional employment (number of persons employed) generated by producing the extra output induced by each of the output effects.

- **Income multipliers** for a given industry are defined as the total value of income from wages, salaries and supplements required to satisfy a dollar's worth of final demand for the output of that industry.

- **Value added multipliers** can be interpreted in the same way as the income multipliers being wages, salaries and supplements plus gross operating surplus required to satisfy a dollar's worth of final demand for the output of an industry.

- **Initial effects** are the initial requirement for an extra dollar's worth of output of a given industry.

- **First round effects** are the amount of output / employment / income / value added required from all industries of the economy to produce the initial one dollar of extra output from an industry.

- **Industry support effects** are the induced output / employment / income / value added from the first round effects (but excluding the first round effect), where the first round output from all industries will induce extra output from all industries, and in turn, these will induce extra output, and so on.

- **Production induced effects** are the amount of output / employment / income / value added required from all industries of the economy to produce the initial one dollar of extra output and all the subsequent induced output. Production induced effects include the total of first round effects and industry support effects.

- **Consumption induced effects** mean, to produce the initial and the production induced output, wage and salary earners will earn extra income which they will spend on commodities produced by all industries in the economy and this spending will induce further production by all industries, where the output / employment / income / value added resulting from this further induced production is the consumption induced effects.

- **Total multipliers** are the total amount of output / employment / income / value added induced by the requirement from all industries to produce output to satisfy the demand for an extra dollar of output from an industry, and by the spending of the extra wages and salaries earned (from producing the additional output) by householders (consumers). The total multipliers include initial effects, production induced effects (which include first round effects and industry support effects), and consumption induced effects.

MELBOURNE
(03) 9600 0500

SYDNEY
(02) 9221 5211

BRISBANE
(07) 3221 8166

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